

# Connecticut

**AUGUST 1955** 



# "We Held a Nation-Wide Sales Conference For Only \$279

#### -says Jack Emerson, Production Manager of Marlin Industrial Division

"Last month we needed to introduce a new service to 15 of our field men across the country. We wanted them to share our enthusiasm for it . . . and wanted their direct reactions. But we estimated it would cost at least \$3,000 to bring them back to the home office.

"At the suggestion of a Long Distance Representative from the telephone company, President Milton Small wisely decided to hold the meeting by phone. And, sure enough, two 'Conference Calls' did the trick! We just gave the names and phone numbers of our men to the Operator. She did the rest—notified them all in advance . . . and then connected us by phone at the specified time.

"It was like being in the same room! We got acquainted again; we talked things over for nearly an hour and a half. So it was a good morale builder as well as a successful meeting. And we saved a lot of money holding it by phone."

That's how one New England firm solved a particular problem. And others are discovering the convenience and

economy of a "Conference Call." Find out how you can profit from this and other special long distance services. Just call your telephone business office and ask for a Long Distance Representative. He'll be glad to help you.

MARLIN Industrial Division in New Haven, Connecticut, is known nationally for its employee bulletin board services. Thousands of these services are in use in firms that read

like the "Who's Who's" of business. Marlin also supplies current news photos and personalized employee bulletins based on copy supplied by its customers.



Jon L.

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

# Connecticut

MANUFACTURERS' **ASSOCIATION** OF CONNECTICUT, INC. **VOL. 33** NO. 8 AUGUST, 1955

L. M. BINGHAM, Editor

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CARLYLE F. BARNES ..... Bristol

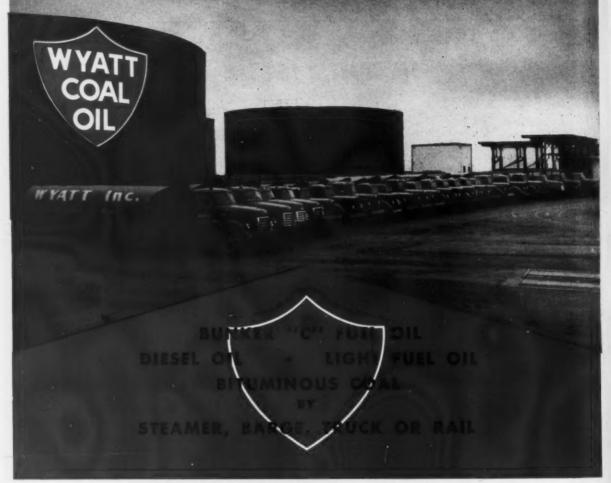
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E. B. SHAW ..... Darien

A PART OF OUR FLEET OF TRUCKS
SERVING CONNECTICUT AND
WESTERN MASSACHUSETTS INDUSTRY

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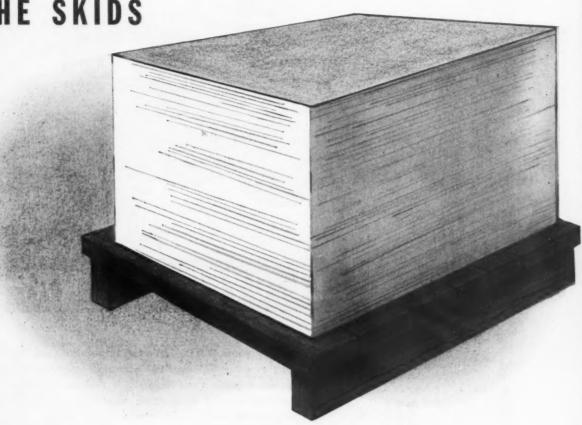
# WYATT, INC.

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# BUSINESS IS BETTER....

ON THE SKIDS



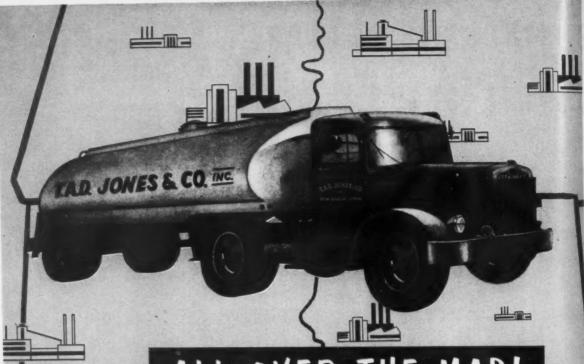
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# ALL OVER THE MAP!

For thirty years, T.A.D. Joins delivery-trucks have been rolling over the hishways of nnecticut and Massaclusetts, bringing pranqui and depend ble fuel-service to be tanks and bunkers of southern how England's industry. While not so conspicuously marked as to source, the volume of our barge- and rail-a liveries ally important.

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T. A. D. JONES & CO. THE.

# G. A. W.\* - A New Opportunity For Management?

By WARREN L. MOTTRAM, Vice President\*\*
R. Wallace & Sons Mfg. Co., Wallingford

American business man today can help but look back enviously, at times, to the simplicity of business in the days of his forebears. Yet, in this present period with it's new responsibilities—now complicated by G.A.W.—we have made our greatest progress.

It is estimated that one half of our present national working force is engaged in the production and sales of things unheard of generally fifty years ago. It was during this same period (1902-1952) that we attained our greatest productivity. And with this increased productivity we have reached a standard of living unmatched anywhere. Yet many will agree we have not yet reached maximum efficiency in production. Neither have we reached the ultimate in our standard of living. This is most easily visualized when we look outside of our great country and note what others have or, more importantly at the moment, have not done.

Until recently, it was somewhat of a mystery why workmen in other countries, particularly in Europe, had not matched the high productivity of American workers even when supplied with American equipment and American know-how. Now, however, students of the problem are in general agreement that the answer lies mainly in the difference between the attitude of the American workmen and the attitude of the European workmen.

One writer in discussing the importance of attitudes states that the secret of getting goods produced at a profit lies in the ability to get individuals to produce more because they want to rather than because they are forced to. To add emphasis to this statement we find another writer summing up his belief in the words "productivity is an attitude". Another believes that, to many, "attitudes are more important than facts".

In spite of these indications that attitudes of employees are all important for maximum success, we find that, as yet, the money spent on research in this field of social science is pitifully small. For example, it is currently estimated that only one-thirtieth of America's total four billion dollar research budget is being spent in the field of social science.

While much remains to be done in research there is much that we as business leaders can do in discharging our responsibilities. For example, it is recognized that most people are willing to let others do their thinking for them. Studies in this country reveal that 95% of our citizens look to others for leadership. When told of this a successful European business man stated that in his experience the ratio was 99 to 1. Whether 95 to 5 or 99 to 1, the lesson is clear: there is a great opportunity for business men to dominate this group.

This same European business man then pointed out a common weakness when he stated that many leaders brag about their willingness to meet the other fellow half way. Very few victories were ever won by meeting the enemy but half way. A real leader must go more than half way. This does not call for sacrificing principle or agreeing to unsound propositions. It does call for a real attempt to understand the other fellow's thinking. It also offers an opportunity to do a selling job.

And it is here that G.A.W. offers us an opportunity. The seriousness of the G.A.W. issue should compel us to give this matter of human relations more than it's usual amount of attention. We are bound to profit as a result of such action. For we, as business leaders, will have a better understanding of our employees. And of equal importance, our employees will better understand our problems. If our approach is proper we shall find that the employees' attitude toward their work will improve. And with this better understanding and better attitude we will all benefit.

To those who feel inclined to lose courage, let us recall that during the past fifty years, the period in which we have made our greatest progress, the most successful managements have been the ones who have changed their basic attitude toward their employees. They are the ones who found that employees work best when they feel they are a part of the team and who believes that management's basic function is the development of people. These successful managements are the ones who believe that their greatest chance for further gain lies in the field of human relations. They are the ones who believe that the next twenty-five years will go down in history as an era of Human Engineering.

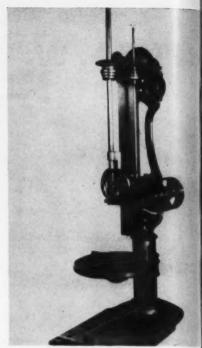
<sup>\*</sup>Guaranteed Annual Wage

<sup>\*\*</sup>Mr. Mottram, the author of this month's guest editorial, was general manager of the Wallingford Company, Inc. prior to becoming associated, in 1943, with R. Wallace & Sons Mfg. Co. as assistant to the president in charge of industrial relations. In 1953 he was elected a vice president. He is also a director of the company and its subsidiaries and of the Meriden Manufacturers Association. He is a member of the Industrial Relations Committee of MAC, Industry Member of the Connecticut State Board of Mediation & Arbitration and past president of the Connecticut Personnel Association.



**BULLARD MACHINE TOOL COMPANY-1890** 

# YANKEE TOOLMAKERS



**VERTICAL DRILL PRESS-1866** 

Seventy-five years ago an enterprising young man, a Yankee Toolmaker who had already earned an enviable reputation for his knowledge of precision machinery, founded a machine tool works in a small loft in Bridgeport, Connecticut. His name was Edward Payson Bullard. He began his Bridgeport venture after gaining wide experience as a dealer in both new and used machinery and as a toolmaker who had served a sound apprenticeship at Colts, Pratt and Whitney and as the Superintendant of a large machine shop in Georgia.

#### Early Experiences of the Founder

The youngest of seven children he had been orphaned at an early age. He grew up on a farm near Great Barrington, Massachusetts but machinery and tools held a special magnetism for the youth. At seventeen to his delight he became an apprentice at the Whitin Machine Works at Whitinsville, Massachusetts earning \$.63 a day for his work day of 11 hours, 6 days a week.

Upon completing his three year apprenticeship, Mr. Bullard secured employment at the Colt factory in Hartford. Two years later he joined Pratt

& Whitney and was soon earning the excellent wage, for a young man of 22, of \$2.00 a day.

22, of \$2.00 a day.

In 1864, the Yankee Toolmaker, with sound training behind him made two important decisions, he married Alice Camp, the daughter of Dr. Joseph Camp and the former Lucy Brewster of Pilgrim ancestory and launched his first business enterprise, Bullard



E. P. BULLARD-Founder

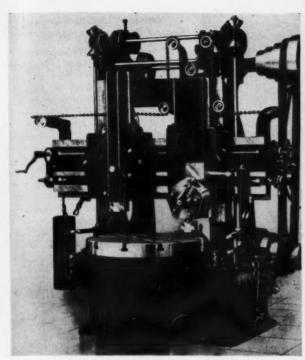
and Prest, General Machinery in Hartford.

The next fourteen years saw this resourceful and enterprising machinist and his associates battling against a period of great economic instability. Bullard and Prest became Bullard, Prest and Parsons and then Bullard and Parsons. The Connecticut River took a hand in the ill-fated destiny of this company when it overflowed its banks flooding the shop and destroying the equipment. Although the firm moved to Bristol in an attempt to recover, in 1869 it was forced to close its doors.

The next few years saw Bullard in Georgia, then in Cincinnati, Ohio and finally in 1875 in New York. Five years later in 1880 he started an enterprise in Bridgeport, Connecticut as an offshoot of his New York business.

#### Launching of the Bullard Company

The birthplace of the present day Bullard Company, then known as the Bridgeport Machine Tool Works, was in a thirty by sixty foot room in a building at Broad Street and Railroad Avenue. Sales headquarters for the infant firm was in New York at 14 Dey Street







VERTICAL TURRET LATHE-1907

where the Yankee Toolmaker was already well established in his new and used machinery business. Within two years the Bridgeport Machine Tool Works had made impressive progress. The working force had jumped to 10 men working 10 hours a day, 5 days a week and 9 hours on Saturday.

During the years that followed, Edward Payson Bullard laid the firm foundation of the impressive organization that has played such an important role in the life of the City of Bridgeport and the State of Connecticut.

Out of his own experience, the founder of The Bullard Company realized the importance of industrial training for young men. In 1885 he established a three year apprenticeship program in Bridgeport. Wages were seven cents an hour for the first year, nine the second and twelve cents the third with each graduate receiving a one hundred dollar bonus. This was the ground work for one of industry's most enlightened preparatory training courses.

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In 1919 Bridgeport's first industrial training school was opened. In 1944 Bullard officials played an important role in the opening of the Bullard-Havens Technical Institute. In 1951 the Institute moved to a new

modern center with fifty acres available for the expansion that is certain to come.

An outwardly stern man, Edward Payson Bullard enjoyed a warm relationship with his employees, even after his force grew into the hundreds. Strongly influenced by the discipline of his early upbringing and its religious atmosphere, he believed firmly in the tenants of the Scriptures, and authoritarian rule to him was also a part of orderly human existence.

At the beginning of the twentieth century, Edward Payson Bullard was the owner of a firmly established and respected business. His five sons had entered the Company beside him. He had made important contributions to machine tool design and was the employer of several hundred workers. As a constructive citizen of his community, he had every reason to feel proud of his achievement.

#### A Trip Abroad Inspires Expansion

With the turn of the century, The Bullard Company entered a new phase of its existance. A trip abroad opened up to the founder an awareness of the vast overseas potential market. Soon two of his sons, Dudley Brewster and Edward Payson, Jr. went abroad to study machine design. It was here that



MULT-AU-MATIC-1916

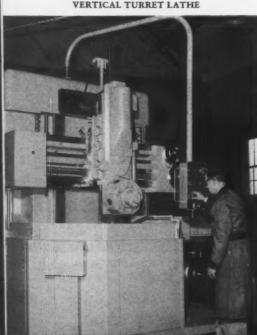


AERIAL VIEW of present Bullard Company facilities showing new foundry.

Edward Payson, Jr. met Count deDion one of the most important auto manufacturers of that era. In his talks with this French industrialist, he quickly realized that a machine designed to speed up production and cut costs in the automobile field would find many applications at home in the production of steam engines, pumps, railroad equipment and that fast growing electrical field.

The problem of tougher metal also occupied the younger E. P. Bullard's attention. From England he brought back a steel hardening process that was quickly incorporated into Bullard design.

26" CUT-MASTER VERTICAL TURRET LATHE





E. C. BULLARD President—1955

On his return from Europe, E. P. Bullard, Jr. became Vice-President and General Manager of the business. Shortly after, Edward Payson Bullard, Sr., now 60, was forced to retire because of a heart condition.

In 1905, at his home in Bradenton, Florida, the founder died. At his memorial service in Bridgeport, the Reverend Henry A. Davenport voiced the sentiments of his friends, neighbors and employees when he said, "Mr. Bullard was approachable, affable, courteous and kind. I have seen him in perplexing and provoking circumstances, yet I cannot recall a harsh, unbecoming word. Manners do not make the man—they reveal him. He was gentle and courteous, honest and industrious, devoted and faithful."

#### World-Wide Sales Under Second Generation Management

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At the machine tool company, E. P. Bullard, Jr. became the new president. Stanley Hale, Vice-President and Augustus H., a nephew of the founder, the treasurer. The three other Bullard sons also occupied key positions in this industrial dynasty.

During the first decade of the century, the business grew rapidly and was now serving industry all over the world. Boring Mills and Vertical Turret Lathes became the main products on which the company concentrated. Bullard customers included America's industrial greats, Carnegie Steel, E. I. DuPont, American Locomotive, Otis Elevator, Westinghouse Air Brake, Timken Roller Bearing, General Electric and others.

#### Birth of the Mult-au-Matic Mass Production Tool

The day of mass production was dawning. Again The Bullard Company took an important step forward. In a single machine, the result of a collaboration between E. P. Bullard, Jr. and his brother Dudley Brewster Bullard, several operations were combined to automatically produce a part. Thus was born the famed multispindled tool known as the Mult-Au-Matic, a landmark in The Bullard Company's progress. In what is practically a historic meeting with Henry Ford, E. P. Bullard, Jr. told the story of a new machine. Flywheels then took 18 minutes for this mass production genius to turn out. Bullard promised to turn them out in two minutes. Ford was skeptical but interested and a test was arranged. In a withering test that lasted 54 days and nights, the Mult-Au-Matic turned out finished flywheels in a little over a minute. Within a few years, over five hundred of these machines were in operation in the Ford plant. Eventually, practically all auto manufacturers purchased Mult-Au-Matics.

#### **World War I Contribution**

The dramatic beginning of World War I inaugurated another important chapter in the Company's history. Machine tools in the task that faced industry were indispensable. The company geared itself for expansion, realizing that existing facilities on Broad Street would be insufficient. A large tract of land was purchased on the outskirts of Bridgeport in the Black Rock

area bordering the Town of Fairfield. The Taylor Foundry Company was also acquired as a source for urgently needed castings. During 1915 the Bullard work force jumped from 200 to 1500. The war, marking a new industrial, political and social era, also saw The Bullard Company enter into the manufacture of fighting equipment.

Bullard know-how soon manifested itself as the company turned to the production of cannon. The painfully slow process requiring 30 hours for boring each gun was quickly reduced to 20 hours. The overall time for rifling from 23 hours to 3 hours 10 minutes. The 155MM gun was produced right through the war until 1919 when the contract was terminated.

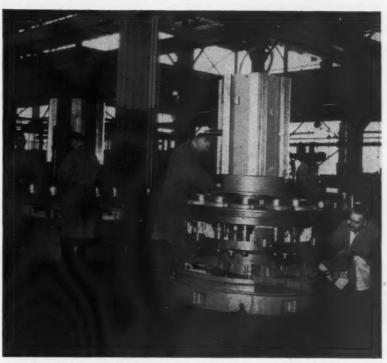
#### **Post War and Depression**

With the disposal of the Broad Street plant in 1922, all operations were transferred to the big Black Rock establishment. By 1925 business nationally had returned to normal and in 1929 another event of great significance took place. For over 40 years The Bullard Machine Tool Company had been family owned. Now with the third generation assuming increasing important responsibilities, Bullard stock was traded on the New York Curb Exchange and later admitted to the New York Stock Exchange. At the same time, the corporate name was changed to The Bullard Company.

The dark days following the stock market collapse in 1929 slowed to a halt the wheels of industry on which The Bullard Company depended for subsistence. During this period, the company lost two of it's leaders by death. Augustus H. Bullard, nephew of the founder and Secretary and Treasurer and Stanley H. Bullard, third oldest son and Vice-President and General Manager. Both died in 1930. Edward C. Bullard, grandson of the founder was elected Vice-President and General Manager, his father, Dudley B. Bullard, oldest son of the founder became Vice-President and Chief Engineer. Joseph W. C. Bullard, youngest son was named Vice-President in charge of research.

#### **Pearl Harbor Challenge Met**

In 1941 a portent of things to come was the erection of the new assembly building. Pearl Harbor produced a surge of unprecedented activity. Following consultation with the War Department, the company agreed to concentrate solely on the Mult-Au-Matic



ERECTING SHOP-Spindle Setting in the final assembly of a Bullard Mult-Au-Matic.

and spiral drive Vertical Turret Lathe. In enormously expanded production, the employment rose from a normal of 1200 to a peak of 6500 working around the clock.

The Navy tapped the company for a vitally important war assignment, the production of British Mark 12 and Mark 15 aerial torpedoes. Complex mechanisms, they contained 4,000 parts and required a high degree of precision manufacturing. Other vital war equipment, couplings and gear blanks for landing barges, turbines, drums, housings for aircraft came off the Bullard production line.

Returning to its established line after World War II, the company announced the development of a remarkable new machine. Called the Man-Au-Trol, meaning manual or automatic control at the option of the operator, this revolutionary control mechanism was invented by E. P. Bullard III, son of the President and grandson of the founder. Along with this invention, other basic improvements were added to their machines providing the firm with ammunition for the post war sales battle.

In 1946, after 40 years as president of the company, Edward Payson Bullard, Jr., became Chairman of the

Board. He died in 1953 at 81. When he started as an apprentice 54 years earlier, Bullard sales volume was \$200,000 a year. He had seen it rise to \$50,000,000 a year.

#### **Third Generation Takes Over**

The election in 1946 of Edward C. Bullard as President, a son of Dudley B. eldest son of the founder saw the third generation take over the company's management.

In 1953 the volume of Bullard sales reached a high of \$64,618,753. With the accession of the third Bullard generation, the administrative picture assumed a new look. Greater responsibility was delegated to division heads. New opportunities were made available able to all personnel. The quest for improved performance goes on ceaselessly at The Bullard Company. With foresight and a progressive engineering viewpoint, its staff is constantly anticipating the needs of an expanding manufacturing economy.

## Seventy-Fifth Anniversary Open House

With the passing of May, 1955, the company successfully concluded an Open House program held in recogni-

(Continued on page 43)



TEACHERS leaving Woolsey Hall and boarding buses for their BIE Day tours.

# New Haven Holds Sixth B I E Day Conference

Editor's Note—This story of New Haven's sixth annual BIE Day program should serve to inspire other communities to make such programs a regular feature of their public relations activities. Such programs were once held in Hartford, New Britain, Bristol and Manchester, but continue to be an annual feature only in New Haven, Meriden—Wallingford area and in the Stamford—Greenwich area. The school systems in all of these communities return the hospitality of the business organizations each fall by inviting key businessmen and women of the community to tour the schools where they see classes in session, talk with teachers and administrators, discuss curriculum and instruction methods and get answers to questions they have about the educational process.

ANOTHER taller milestone of cooperative effort and understanding between leaders of business and industry on the one hand and educators on the other, was erected in New Haven on Wednesday, May 4, when nearly 2,000 people from Greater New Haven's school systems

visited 86 of the area's manufacturers, retailers, commercial and savings banks, construction companies, util-

ities, insurance and investment houses, newspaper publishers and radio stations, the hospital and transportation facilities.

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It was the sixth annual Business-Industry-Education Day, first launched on April 6, 1950, to give teachers and school administrators in the area a full day to study business and industrial firms, in small groups, by means of a guided tour in the morning and an afternoon conference with a "no holds barred" question and answer period. In typical American success story style, the business and educator participants have increased each year from the 45 companies and 1,550 teachers who participated in the first BIE Day program to the 86 companies and nearly 2,000 teachers and administrators who took part this year. Each successive year has been marked by new refinements which have sought to eliminate any gaps in the informational program to aid teachers.

The pattern of the day's program was: Brief greetings at Woolsey Hall, Yale University, by representatives of the Greater New Haven school systems and key representatives of industry and an explanation of the day's events; transportation of each assigned group to the proper plant or business; briefing of teachers by a company official who outlined the day's events at the host plant or business establishment visited; a guided tour of key departments in the plant or business; luncheon and discussion program in the plant restaurant or nearby restaurant.

This year's business sponsors were the Manufacturers' Association of New Haven County, assisted by the Manufacturers and Retail Divisions of the New Haven Chamber of Commerce. The educator sponsors included the Boards of Education of New Haven, East Haven, West Haven, Hamden and North Haven, with the cooperation of the Director of Rural Education and the New Haven State Teachers College. The guests included not only

QUESTION AND ANSWER program, following luncheon in Winchester Clubhouse, features teachers' visit to New Haven Olin Mathieson Chemical Corporation. Robert L Metcalf, industrial relations manager, standing, is preparing to answer one of many questions from visiting teachers.



teachers but also school administrators and office and service staffs of the school systems—all of whom had been assigned to a specific visiting group by the school superintendents in the area.

In the opinion of the sponsors this and all other BIE Day programs help to establish a sound basis for a strong and continuing business-education relationship in a community by serving to:

1. Strengthen the program of work for all who cooperate.

 Give the teachers and businessmen first-hand experience in the productive, distributive and service agencies of the community.

3. Help teachers and businessmen to understand each other's contributions to the community's progress.

4. Equip teachers to give students counsel and guidance based on actual needs and opportunities in their communities.

5. Enhance appreciation and expansion of our American economic system of education.

#### **Teacher Comment**

Following the usual practice of the sponsors an evaluation questionnaire was given to all teachers participating in the program. The questions and some of the typical answer comments which follow should serve as convincing proof of the value of properly conducted BIE Day programs regardless of the communities in which they are held.

QUESTION. What possibilities of transfer to the pupil-teacher learning situation in the classroom will result from today's activities?

COMMENT. "1. Understanding of working conditions encountered by the parents of our children, and later by the pupils themselves.

2. Appreciation of our capitalistic democracy as a way of life."

"As a science teacher there are many applications of the laws I teach."

"A great deal of the information I received today will be helpful in teaching units on transportation."

"The transfer of the actual first-hand experience to the pupils. The teacher also has more understanding of how business operates."

"Real human element of cooperation. QUESTION. Are there community values in this program?

(Continued on page 35)



BRIEFING SESSION at the plant. A. C. Gilbert, Jr., president of The A. C. Gilbert Company, explains what the teachers will see on their tour through the company.



VAULTS of the National Savings Bank, New Haven, are explained by Miss Kathryn



THE WORKINGS of English Station's "line" of generating equipment are explained to the group by Eugene W. Somerville, left, superintendent of production, The United Illuminating Co.



OPERATOR Howard Hamilton, (extreme right) describes one operation of the machine shop of Pratt & Whitney, New Haven to teachers Paul Carver, John Corbett, George Murray, Russell Flanagan and Ethel Bitzer. Joseph Bujnowski, first on the left, looks on.

# A Helping Hand For

## **Industrial Parts Manufacturers**

By A. FRED HITCHINER, President
Metal Products Sales Co., West Hartford

EDITOR'S NOTE: With Connecticut's demonstrated and latent "know how," capable of producing practically any product, the greatest need to guarantee continued future growth of industry in the state is more efficient and widespread distribution of products, particularly for the smaller manufacturers employing less than 50 persons, many of whom cannot afford to pay fixed salaries for the right type of sales talent. This article by Mr. Hitchiner sketches the type of independent sales organization that does exist in some fields and should be created in other fields to assure larger and more profitable sales and future growth of a larger percentage of today's "industrial acorns" into sizeable oaks a few years hence.

THIS is an age of specialization ... and among the thousands of specialists who are contributing greatly to our country's economic progress none looms more important than the industrial parts manufacturer. This specialist has everything it takes to produce parts better, faster and cheaper than the original equipment manufacturer can make them himself.

The parts manufacturer has vast experience. He has equipment especially designed for making parts more efficiently and economically—machines for turning, grinding, swaging, knurling, milling, thread rolling, etc. He has personnel skilled in the most modern metalworking processes and techniques.

But many times the industrial parts manufacturer has one great need. He is not in a position to spend the necessary time to maintain and fully utilize a sales force that will give him nationwide sales coverage, and so the scope of his contribution to our national economy—and the extent of his personal success—is limited.

That's where a sales organization that directs the activities of the manufacturer's agents comes into the picture!

A sales organization of this type should provide the industrial manufacturer with the means of selling his fabricated products to the original equipment market as efficiently and profitably as possible, leaving the parts manufacturer free to devote all his time and energies to his production



A. FRED HITCHINER

job. A sales organization that performs this task for manufacturers can merely arrange for the manufacturer's agents to contact prospects and customers, or go far beyond this to offer the parts manufacturer a complete sales program which includes all the advertising, sales promotion, follow-up and details required to assure over-all coverage of the market . . . and resultant orders.

Just as the parts manufacturer, because he is a specialist in parts production, can produce parts better and cheaper than his customers, so the sales organization planning and directing the manufacturer's agents' activities, can provide a more effective, more com-

prehensive sales program at lower cost than the parts manufacturer because it is a specialist in selling,

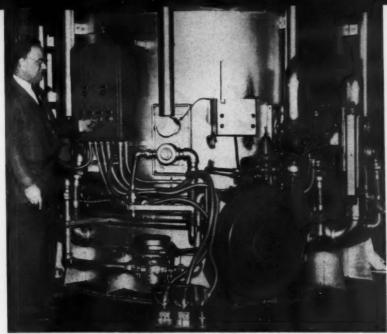
In mapping a sales program for the parts manufacturer, the first thing an efficient sales organization should do is determine the sales territories. Through comprehensive market studies, and by using up-to-the-minute research methods, the most profitable markets for the manufacturer's products are determined and then balanced ucts are determined and then balanced territories are laid out to guarantee complete sales coverage of those markets in the most economical manner possible.

## Importance of Selecting Right Representatives

Next important step in the building of a complete sales program is the selection, by the sales organization, of the right men to represent the parts manufacturer in the territories established. Through the years, this specialist in selling has accumulated a store of knowledge about hundreds of trained sales agents operating in every section of the country . . . their education, background, training and sales accomplishments . . . and so is in a position to locate and appoint sales agents who are qualified to do the best selling job for the parts manufacturer. Before appointing each sales agent, it must be determined that he fulfills the following requirements: 1. Sells products that are complementary to those of the parts manufacturer; 2. Sells a limited number of product lines, insuring that the parts manufacturer's products will get full coverage; 3. Has the technical training and background needed to be able to correlate the benefits of the parts manufacturer's products with the needs of prospective customers; 4. Has the ability to present the parts manufacturer's product story so effectively that it will return a big percentage of sales.

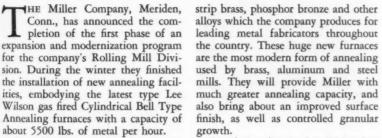
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(Continued on page 42)



FREDERICK R. SLAGLE, company vice president and general manager of the Rolling Mill Division pressing the button starting working operation.

# Miller Company Installs New Annealing Furnaces



Annealing is a very important operation in the production of sheet and poured concrete pit about 60 feet long,

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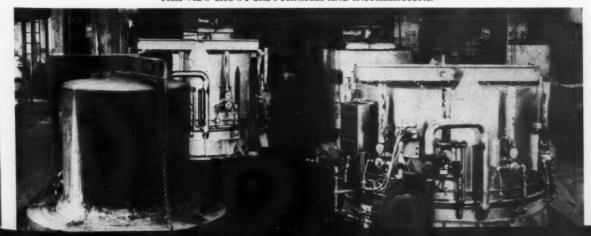
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PHOSPHOR BRONZE and brass in furnace is being sealed prior to annealing.

22 feet wide and 11 feet deep. The pit is bridged by steel beams. On this framework there is laid a steel grating to serve as flooring, for accessibility to the six loading bases. Each base has its own steel underpinning to support the annealing equipment with its load. Space has been allocated for three additional bases to be installed at a later date. The building which houses the new annealing section has been retrussed and new supporting beams have been added to carry the 5-ton (Continued on page 38)

THIS VIEW SHOWS GAS FURNACES AND INSTALLATIONS.



# Let's Lead Again

By WILLIAM W. EATON, Industrial Consultant Milford, Connecticut and New York, New York

An article by Mr. Eaton entitled "Technological Insurance" which was published in the January 1954 issue of Connecticut Industry was so well received we invited him to make a second contribution to CI that would reflect his views on Connecticut's present standing among the states and what may be done to improve it. A graduate of Swarthmore College, the possessor of a Ph.D. in physics from Yale University and some 25 years business experience including 3 years service on the staff of Dr. Vannever Bush, whose staff was responsible for the development of the atomic bomb, guided missiles and other new weapons, Mr. Eaton is well equipped to give sound advice and suggestions for the improvement of Connecticut's industrial economy.

TROM earliest colonial days up through the beginning of the twentieth century, Connecticut was outstanding, relative to the rest of the country, in the development of new ideas, techniques and products for its industries. In those earlier days, such advances were not the products of "research", as we know it today. On the other hand they were conceived with exactly the same objective and purpose in mind as are the complex end results of today's vast industrial research and development effort, namely, the application of science to the problems of industry.

Many of the outstanding early industrial developments of Connecticut were in the form of patents. From the very beginning of the United States Patent System in 1790, Connecticut led all other states for over a century in the number of patents granted, in proportion to its population. The first formal Commissioner of Patents was Henry L. Ellsworth, born in Windsor, Connecticut, and from the date of his appointment in 1836, through 1897, there were a total of five Commissioners of Patents from the State of Connecticut. This is significant in illustrating what an important part our State played in developing the great American Patent System, the most effective incentive ever devised for im-



WILLIAM W. EATON

proving the standard of living of mankind.

Most Connecticut citizens are aware of the many basic industrial advances sparked by Connecticut "greats", such as Eli Whitney, Charles Goodyear, Samuel Colt, Samuel Morse, and many others. We all take pride in the accomplishments of those early inventors to whom can be attributed a substantial portion of the foundation of our whole country's great industrial activity. We also follow with interest the continued participation by Connecticut sons in an important specific art such as the development of submarines, starting with David Buswell in Revolutionary times, continuing with Simon Lake and the first "even-keel" submarine, right down to the fantastic

Nautilus, with its amazing performance only a few weeks old. We can even view with admiration the feat of Everett Horton of Bristol, who invented the world's first telescopic fishing rod, so he could hide it under his coat when he went fishing on Sunday!

These few names and many others will remind all Connecticut citizens of the rich heritage of our State in the industrial development which has made our country a strong nation of free men. But we must also face today's realities objectively.

#### Connecticut's Standing Today

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It is true that the twentieth century has seen the establishment of hundreds of industries in Connecticut, such as factories producing airplanes, helicopters, brake linings, new household appliances of all kinds, lacquers, ingenious toys, rubber goods, cables, razors, flashlights, batteries, chains, specialized x-ray and electronic equipment, bearings, chemicals, automotive machinery and hundreds of other products. Yes, it is correct that Connecticut furnishes our nation, and the world, products running the entire alphabet from airplanes and aluminum articles, brass and bronze, corsets and chemicals, all the way down to x-ray equipment, yachts and zippers. On the other hand, the bitter truth is that although Connecticut is active industrially, and probably has her rightful statistical share of new developments and industrial progress, we no longer can demonstrate that we are really "in the lead", in this respect, as in past centuries.

For example, according to a reliable survey by the National Research Council in 1950, there were 2,800 industrial research laboratories in the United States. Out of these, only 311 were located in New England, and only 117 in the State of Connecticut.

On a pure population basis, this ratio is not bad, but considering the type of leadership in industrial development which this State gave to the

Condensed from an address before the Bridgeport Chapter of the Controllers Institute of America, February 2, 1955. The writer is indebted to Dr. Joseph Fleischer of the Olin Mathieson Chemical Corporation, for many of the facts of Connecticut history.

nation for 200 years, it is not an outstanding showing. Consider also the fact that our State had in 1950 only 18 of the nation's industrial research laboratories with more than 50 professional workers, and only one of the 18 laboratories with 500 or more professional employees. It is doubtful that the situation has changed materially in 1955.

It is also sobering to refer to some figures from a more recently issued booklet entitled, "Technical Research in New England". This was authored in 1954 by the National Planning Association's Committee of New England, which included many prominent New England industrialists. It was published by the New England Council, and is part of a series of publications on the Economic State of New England. One general conclusion reached is quoted verbatim as follows:

"New England's industrial research and development efforts are a little below the United States standard. In the light of the uncertain balance between its locational advantages and disadvantages, this is not good enough for a region which is passing through an important transition in industrial structure".

We should add that this situation is definitely not good enough for a state with the outstanding history of industrial advances, developments and patents which is ours.

An even more discouraging result of the survey is the fact that New England, including Connecticut as one of the two leading industrial states in the region, has not retained its fair share of its own native technical scientists who have grown up and received their education here. Also, it is clear from the evidence presented that the region has not captured its proportionate share of government research and development contracts which have in many industries stimulated and supplemented highly productive commercial research.

Several areas in New England, and in this State in particular, have experienced severe losses of almost complete industries, such as textiles, etc. Although the lack of adequate research in these industries was not the sole cause of their difficulties, the evidence is certainly strong that it has been an important factor. Furthermore, it would appear from all the data at hand that, had New England and Connecticut industry spent larger amounts on basic and applied research

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during the past fifty years, there is a strong probability that new and budding industrial developments would have been uncovered to replace the industries which have been lost, if indeed they would have been lost at all.

#### Leadership For The Future

These being the facts, what do we do about it?

In deciding how we in Connecticut can take steps to regain our lead in developing new ideas and techniques for industry, it is useful to review how such advances are conceived and applied in our complicated technical world today. The work leading up to practical scientific advances in industry can be divided into two general parts: (1) the pure research portion; and (2) the development side. In planning a profitable research and development program for the average company, it is essential to recognize clearly the difference between these two phases. Perhaps a vivid example will be illustrative:

The pure research results underlying nuclear fission and the atomic bomb were printed on the front page of a leading newspaper in 1940, believe it or not, and were certainly well known in scientific circles. Yet it took several years and billions of dollars to do the development work which made this knowledge practical for either defense or commercial purposes. In general, this relationship is true for most scientific advances which are brought eventually to practical usefulness. The research portion is usually only the beginning. The developmental portion is often much more costly, time-consuming and difficult than the research stage. Hence, any program of industrial research must at all times stress the developmental and engineering aspects, as compared to the pure research. On the other hand, no program will be sucessful in the long run unless there is at least an element of pure research to act as a kind of fountainhead for new ideas and approaches to problems. There is certainly plenty of evidence today to show that for industry to prosper, in Connecticut or anywhere else, there must be an element of pure research. Each company must decide how much research to inject into its own overall program to achieve a desirable balance. The important thing is to establish and follow a systematic program, regardless of the size of the company.

In our age, scientific advances in industry are often the product of a team of technically trained people with various backgrounds, such as electronics, plastics, metallurgy, machine design, chemistry, etc. Nevertheless there is occasionally the golden opportunity for a brilliant individual to shine. Although most technological advances require a wide variety of skills, rarely possessed by any one individual, it sometimes requires a single genius to put the pieces together". Hence, small companies which cannot afford large research teams should always be on the alert for such gifted people.

We should keep in mind that scientific research and development is being carried out in this country today at the rate of aproximately five billion dollars per year. About 70 percent of this enormous research effort is being conducted and financed by private business, which is now employing upwards of 100,000 research engineers and scientists, supported by a still larger number of laboratory, clerical and administrative personnel.

It may be some time before findings from the more fundamental branches of this effort will reach a stage of commercial utility. But much of the "pure" research reaches a market level in many industries in a surprisingly short time, for example, in chemicals and metals.

In the country as a whole, over 700 engineers and scientists are at work today on research problems in the textile industry; over 1,200 in the stone, clay and glass industry; over 1,700 in primary metals; over 2,000 in the non-electrical machinery industry; more than 13,000 in the various branches of the chemicals industry. On the average, American industry is now employing one research sicentist for every 140 factory workers, or one research employee (including scientist and supporting workers) for every 55 factory workers.

#### More Research—Better Future

We should not be satisfied until our industries in Connecticut are doing better than this national average. The results of such research will insure healthy competitive growth in the future. If we do not do our share, we will surely suffer from the competition which will certainly come from other regions where more and more research is being conducted.

(Continued on page 56).

# Selling In 1955

By LEO J. PANTAS, General Manager

Yale Lock and Hardware Division The Yale & Towne Manufacturing Company, Stamford

HERE is an analysis of today's dynamic and expanding American market. It also gives some directional markers that point the way to successful selling on the one hand and failure on the other.

HANGE—sweeping, nationwide, constant—is the dominant fact of life all over America, and it is the most important single factor in the marketing of goods, this year, last year, and I belive for many years to come.

Selling in 1955 should be no different from selling in 1954, except that there's going to be more of it. As we think, however, of the problem of selling in this great period of volatile change in the American scene, the premise is somewhat different. The problem of selling in 1955, and hereafter, must be stated in terms of the incessant requirements of a changing America. Only in its refined essence, only in the sense that the makers of goods must always reach the buyers of goods, is selling ever the same. It is in its adjustments to change that selling during one period becomes different from another. Today the difference is monumental. To understand it we must understand the changes that are taking place before us.

Historians, sociologists, government planners, market analysts, military strategists, population experts, foreign observers, and writers for every conceivable kind of publication have all, in their own ways, tried to understand and explain the dynamic growth that continues to take place in our country. It has confounded our enemies who have been patiently waiting for the giant to come apart at the seams. It has heartened our friends, the entire

free world, because it has been the prime cause of their economic revival. But most explanations of this remarkable phenomenon get lost in awestruck speculations. Why it is happening, regardless of which party is in power, regardless of political tensions in many parts of the world, cannot apparently be answered too easily. What is happening, however, can be rather adequately described by vital statistics, by the facts that can be found in the graphs and charts of industry and the government, and by observation of changes in everyday living.

Our population, now somewhere in the neighborhood of 165 million is expected to be about 185 million in 1960 and over 205 million in 1975. Our birthrate, a sustained, healthy, dynamic factor in America's growth added up to 33 million new Americans between the years 1947 and 1953. It is continuing at the same rate. In addition to this, the life expectancy of all Americans, male and female, is advanced each year a bit more by the achievements of medicine and by the health-giving power of our way of life. Looking toward the future just ahead, we can see ourselves as a population, with many more young people and many more aging people, with the special demands for goods and services that such groups produce.

The number of new family units organized is constantly increasing. Contrary to unsupported contentions of certain acidulous critics, the American people approve of the institution of marriage, and from every indication, it will continue to be as popular as ever. Perhaps more so. During the post-war years, about 15,000,000 American marriages have taken place,



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LEO J. PANTAS

and as of 1953 we had in excess of 50 million American families.

Perhaps the development as important as the rise of our population and family organizations has been the great increase in the capacity of families to buy. It has been pointed out that while the number of our family units increased 42% from 1929 to 1953, these families had \$222 billion to spend in 1953, or 87% more than in 1929. But this increase in total family income is only part of the story. Even more vital to the changes in our life has been the broader distribution of income. This is best summed up by this comparison: today, 58% of our family units have a real income of \$3,000 to \$10,000 against 31% in 1929. Moreover, there is a constant movement upwards so that more and more families are being upgraded income-wise and more and more families are advancing into the income group of \$5,000 a year or more.

Everywhere technological advances have been moving with leaps and bounds. American industry is characterized by a sense of adventure. New techniques, new materials, new methods, new machinery are being employed with greater and greater effectiveness. One of the most conspicuous results of this process has been a mounting increase in man-hour productivity, which in turn is translated into greater purchasing power.

#### **Contribution of Technology**

But technology has also contributed a vital social by-product. It has released man from back-breaking drudgery and life-consuming toil. Now, his vitality intact, the American

A digest of an address given by Mr. Pantas at the Annual Meeting of the Virginia State Chamber of Commerce, Roanoke, Virginia April 15, 1955. Mr. Pantas has just been named a Director of MAC. representing Fairfield County to replace W. L. Hubbard who resigned in March.

worker has the energy and inclination to utilize his leisure time for better living. In effect, with purchasing power, vitality, dignity and time he has become a greater consumer of more and more goods and services.

In their quest for better living, American families are in greater numbers deserting the constricting environments of crowded metropolitan areas. The movement into the suburbs is one of the irrepressible and continuous growth factors in the American scene and it is in many ways changing the demand for goods and the distribution of goods. It is now estimated that more than 30,000,000 Americans are true suburbanites, and many more millions who can be classified as semi-suburbanites. This exodus from center-city is a constant force on the living habits of Americans and on the shape and content of goods that must be produced to accommodate these habits.

The manifestations of our electrifying activity are in demonstration everywhere in terms of the production and distribution of goods and services of every kind. They can be seen in homeconstruction, which in 1955 will consist of well over 1,250,000 new units; in automobile ownership which will be represented by just under 50 million cars on the roads; by new schools, hospitals and institutions; by TV sets and foreign travel; by expenditures for food and clothing and entertainment; by investments in health and life insurance. (All this in astronomical dollar values.) In a recent compendium of the facts of this enormous American upsurge, the Editors of Fortune Magazine said:

"All history can show no more portentous economic phenomenon than today's American market. It is colossal, soaking up half the world's steel and oil, and three-fourths of its cars and appliances."

And this market—this voracious, ever-hungry, eager, expanding market—must be reached and satisfied every minute of every day. This colossal need is the problem of selling in 1955 and hereafter.

#### **Todays Selling Problem**

I think several characteristics of this market can be noted and in some measure help to define the contemporary selling problem. It is a buyer's market. This doesn't mean only that in most categories supply exceeds demand, and productive capacity exceeds

consumptive capacity. From the seller's point of view a buyer's market is one of absolute free choice for the buyer. It means the buyer can roam about the market at will, having a choice of the wares of many suppliers before him, and he can make his selection freely on the basis of his own standards of price and quality.

It is also a market in which the "class" buyer has all but disappeared. The distinction, once so much accepted, between "the class market" and "the mass market" has ceased to have importance. To be sure, groups of product must be made with various differences that are reflected in price and quality, but these differences are not class distinctions. Televisions sets are made in many sizes, in many finishes and at many prices. But a television set is still a television set and its joyful use is the province of everyone and anyone. Also, I defy anyone to tell me the income group or profession or geography of Mr. and Mrs. America just by looking at their clothes, or watching them play.

It is also a market with time on its hands—that is, it is a market of healthy people, all of whom have a good life expectancy, and who have a considerable degree of leisure that must be utilized. A market with time on its hands, with a high degree of purchasing power is one of an unlimited consumption potential.

#### Not Boom Market-Just Larger

From the seller's point of view it is also not a boom market. The word "boom" is abused and sometimes dangerous. It implies a temporary condition of exultation and unnaturalness. Yet, there has been nothing temporary about America's market growth. Residential housing for ten years has been consumed at least at an average rate of a million homes a year. This should by now be accepted as a "normal" minimum rate of consumption. Rather than consider this market in terms of "boom", it would seem to me that we must revise our standards of a normal market-revise them upwards in terms of population growth, purchasing power, and productivity per man-hour.

Another characteristic of this market is mobility. It consists of people who have about 50 million automobiles and who like to use them and who like to use planes, trains and ships. This passion for movement must be understood and served, and in its very

movements this market takes with it its everyday hunger for goods and services.

#### Not Hidebound By Habit

It is also a market that can very easily shed itself of habits. Thus the people in it are adventurous buyers, who are not afraid to try new things, to wear clothes of new fabrics, to experience new foods. And when it likes something it will adopt it for its own. It thus does not allow itself to be hidebound and tied down by traditions. Think, if you will, of this market's acceptance of sport clothes, motels, soluble coffee, filtered cigarettes, and, in my own business, the new functionally modern key-in-the-knob type of locking mechanism.

To sell to this market is not an easy, mechanical process. In this market selling does not begin and end with a salesman. It is a planned total operation unlike selling in any other country and involving the design and development of products based upon the right market data, their manufacture at competitive costs and with at least competitive quality, their proper packaging and displaying, their proper pricing, their proper distribution through the right channels to the right market segments, and the right kind of promotion and advertising. Unless these essential elements are incorporated within the sales concept today, it is my belief that few if any products can survive competition in this mar-

I'd like to discuss some of these points in greater detail with you.

## Essential Elements of Successful Selling

First, the design and development of product. This is where selling really begins. Products for this market cannot be developed in an ivory tower as an intellectual exercise. They must be related to an existing market demand, established by available market data, or they must be developed to meet a need that can be transformed into a demand. Products must be developed also in terms of competitive realities. How will the product be received in the company of similar products, and at what price can it be made? These and other questions must be answered, and these are essentially selling questions.

(Continued on page 33)

# Grievance Procedure

## **As A Communication Channel**

LEE W. COZAN, Editor

Journal of Personnel Administration, Washington, D. C.

OMMUNICATION may be defined as the interchange of thoughts and opinions, and is the mainspring of collaborative action. During the past few years, management has become acutely aware of the communications problem. However, this awareness is not in itself a solution. Nor are the measures which have been taken so far particularly effective. Chiefly, they consist of flooding the plant community with all kinds of informational material. One study conducted at a meat processing plant revealed that the average worker builds a psychological barrier against acceptance and does not fully comprehend the information that the employer pelts him with while

Previously, top-level administrators were concerned with getting the work to the supervisors and the rank-and-file employees only. However, today, they are confronted with the problem of "interscaler" or "vertical" communication. This situation involves two-way communication, following a downward pattern from the chief executive through the various levels of the organizational structure, and an upward movement of information and facts.

In an attempt to solve the problem of efficient communication in the plant, there have been developed a number of devices that have gained wide-spread use. Media used to channel information downward are as follows: orientation materials and handbooks, employee magazines and newspapers, bulletin boards and posters, audio-visual aids, and annual company reports. The standard upward techniques are suggestion systems, labor-management committees, union publications, campaigns and contests.

However, it has been pointed out that the solution lies in the sphere of institutions rather than information. Top management must develop an organ for listening, so that it knows what the supervisor and worker want to be informed about. Such a communication channel may be found in the institution of the grievance procedure. While the primary function of the grievance procedure is to settle worker problems, it can be used as a communication channel in the plant community. Before exploring this concept, let us define what we mean by a grievance. Here a grievance means anything connected with the job or work environment which the employee thinks or feels is wrong, and which may be real or imaginary.

It is an established fact that the worker wants somebody to stand up to the Top Boss. He wants the opportunity to voice his opinion about the circumstances surrounding his job. That is, should a need develop. The standard communication devices cited above do not appear to provide this psychological outlet for the rank-andfile. The study aforementioned disclosed that the grievance procedure especially provides that somebody or opportunity. Further, the average worker will discuss with his immediate supervisor or shop steward things that he would not discuss with top-level management or put down in writing. The so-called open-door policy notwithstanding.

It has been observed that supervisors, shop stewards, and employee representatives themselves occasionally use the grievance procedure as a communication channel between themselves and management. Rather than them-

selves percepting the onus for suggesting changes or offering criticisms, they encourage or at least connive with the workers to bring them to the attention of higher management. In some instances even it has been reported that the shop steward or employee representative has readier access to the personnel department than does the supervisor.

Now let us focus on the grievance procedure as a "downward" communication channel. During the initial stages of a grievance, the supervisor is offered an opportunity to explain some aspect of company policy or working conditions which the employee may have not known or understood, and which he may never obtain fully elsewhere. This also tends to set-up a closer working relationship between supervisor and worker.

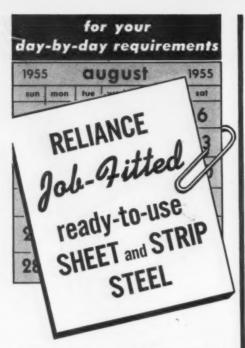
In cases of unionized plants the importance of effective communication between labor and management has been established. Here also may be revealed the importance of the grievance procedure. It may be noted that the shop steward still serves as one of the primary links between the plant and the local union executive board and thus, he is a major source of information of prevailing and persistent complaints made or filed by the rank-andfile that do not progress beyond the initial stages, but still cannot be overlooked for they affect the workers' plant community life. This operates to set-up an informalized communications line between labor and management on everday problems. Consequently, company officials become aware of pertinent facts and information which they otherwise would never receive through other channels.



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During this five month period our two strip mills at Detroit, Michigan and Hamden, Connecticut shipped millions of pounds of Cold Rolled Steel Strip and Flat Cold Rolled Carbon Spring Steel.

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for every 100,000 pounds shipped—99,387 pounds fulfilled customer expectations; rejections for all reasons averaged 613 pounds.

Because the results are stated as averages, an occasional lot of strip may have been "off" a bit more. As against that, the great majority of shipments were right-on-the-button in meeting customers' requirements.

These requirements represented just about every specification in the book, including split-hair thickness tolerances, special tempers, etc. The variety of jobs ran the gamut of stamped and roll-formed products from comparatively simple ones to some of the toughest.

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OCTOBER 9-13 1955 ⊖

## **NEWS FORUM**

This department includes a digest of news and comment about Connecticut Industry of interest to management and others desiring to follow industrial news and trends.

PITNEY-BOWES, INC., Stamford, has announced the election of William F. Bernart, executive vice president, to the post of senior vice president in charge of a new engineering division; John H. Pratt, Jr., vice president for manufacturing, has been elected administrative vice president; and Frederick T. Allen, production manager, has been elected vice president for manufacturing, succeeding Mr. Pratt.

Combined under Mr. Bernart's jurisdiction in a new engineering division will be both research and development directed by John A. Strother and production engineering headed by William H. Diller, Jr.



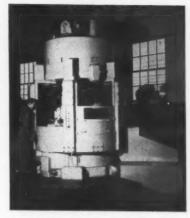
TIME SAVING and exact duplication of molds, dies and production parts is the claim of the new Regent Duplicator Table for Bridgeport and Index millers, according to the producer, the Crown Tool & Die Co., Inc., Bridgeport. The Regent Table, features an effortless fluid motion that insures complete accuracy. Mounted and removed easily, the new tool gives full scale duplication of any shape, two or three dimensional, with a capacity up to 6" by 6". Builtin micrometers contribute to fast setup of the table, designed especially for the one-half and the one horsepower models of the Bridgeport machines, and also for Index #55 millers.



DONALD G. ROBBINS, JR., assistant vice president of the Singer Manufacturing Compayn, Bridgeport, has been appointed to direct Singer's sales organization in Europe, the Middle East and North and Central Africa.

Mr. Robbins joined the Singer company in 1938 as an industrial engineer at the Bridgeport Works. In 1941 he was appointed assistant office manager and the following year he was transferred to the vice president's staff at the company's New York executive

THE COVER



THIS MONTH'S cover picture shows a new type "L" Mult-Au-Matic machine manufactured by The Bullard Company, Bridgeport.

offices. He was elected assistant vice president in 1951.



JAMES D. HANNA, works manager of The Keeney Manufacturing Company, Newington, makers of plumbers' brass goods and heating specialties, has been elected president of the company to succeed William A. Keeney, who has retired.

Other management changes announced were the election of William S. Morrissey as vice president in charge of sales, and R. Stuart Holden as assistant plant manager and assistant treasurer.



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#### ADMINISTRATIVE-TECHNICAL PERSONNEL SERVICE

C. B. Haward, Placement Director 647 Main St., Hartford, Ct. WARD CHENEY, president of Cheney Brothers, Manchester, has announced the resignation of Henry R. Mallory as executive vice president of Cheney Brothers and Chairman of the Board and treasurer of Pioneer Parachute Company. He further stated that Mr. Mallory would continue as a member of the management committee of Cheney Brothers, and as a director of both companies and of Cheney, Greeff and Co.

Ward Cheney has been elected chairman of the board and treasurer of Pioneer Parachute, succeeding Mr. Mal-

lory



THE "FLOWER GARDEN SPE-CIAL", one of the New Haven Railroad's unusual special trains, was run recently to the famous New York Botanical Garden in Bronx Park. This marked the first time in history that a special train has been run to the Botanical Garden and President Charles B. Harding and A. C. Pfander, administrator of the gardens, made special arrangements to make it attractive to New England garden lovers.

At the Gardens three special lectures on flower arrangement were scheduled, and a tractor train was available to transport the visitors about the more than 230 acres of woodlands, meadows and formal and informal gardens, to the extensive conservatory and the beautiful "Snuff Mill" restaurant.



TWO PROMOTIONS in the comptroller's department of The Seamless Rubber Company, New Haven, have been announced by Frederick F. Hollowbush, comptroller.

Robert E. O'Connor has been named assistant comptroller and Raymond J. Coniff has been promoted to be assistant manager of the factory account-

ing department.

Mr. O'Connor previously was assistant treasurer of the book publishing firm of Appleton-Century-Crofts, Inc., of New York, and was manager of the accounting department of the Yale University Press.

Mr. Coniff joined Seamless in 1932 in the shipping department. Five years later he became a member of the factory accounting department, progressing to his present position.

4 4 4

L. H. DEWYK, JR. has been appointed plant manager of the B. F.



the Nation's Headquarters

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Goodrich Sponge Products Division, Plant A., Derby.

Mr. DeWyk has been employed by the company since 1935, serving in various engineering and administrative capacities. Most recently he was responsible for the building and installation of the company's new "Texfoam" foam rubber plant in Waterville, P.Q. Canada.

Mr. DeWyk is a past president of the Derby-Shelton Board of Trade, a member of the Shelton Kiwanis Club, Griffin Hospital, and Hewitt Memorial boards.

\* \* \*

ROBERT F. ELDER has been elected executive vice president of Plax Corporation, Hartford, manufacturer of plastic bottles and plastic film and sheeting. At the same time, Robert A. Glaenzer, formerly Plax general sales manager, was made vice president in charge of sales. C. Paul Fortner, formerly director of research, is vice president in charge of research and development, and Richard S. Light has joined the company as general factory manager.

Mr. Elder has for the past five years been a marketing consultant, prior to which he had been vice president in charge of affiliated companies of Lever Brothers.

Mr. Light has been vice president in charge of all procurement and production in the Snow Crop Division of Clinton Foods, Inc., and before that was manufacturing manager in charge of operations at all Lever Brothers plants.

AT THE ANNUAL MEETING of R. Wallace & Sons of Canada Ltd., held in Cookshire, Quebec recently, Elson P. Dolliver was elected to the newly created office of executive vice president.

In making the announcement, H. Stuart Stone, Jr., president of R. Wallace & Sons Mfg. Co., stated that Mr. Dolliver will head up the Canadian operations. Also that Mr. Dolliver will spend a portion of his time on special development work for the Wallingford plant.

GROUNDBREAKING commenced recently for the \$2,500,000 Mattoon, Illinois plant for the manufacture of flexible metal hose and tubing by The American Brass Company. Arthur H.



MEMBERS OF THE BOARD OF DIRECTORS of The Connecticut Light and Power Company look on while Gilbert J. Williams, executive vice president, receives a service emblem from President Sherman R. Knapp to mark his 35th anniversary with the company. Left to right, behind Mr. Knapp and Mr. Williams, are: Robert E. Probst, secretary, and directors Irvin W. Day, Richard Joyce Smith, Charles L. Campbell, George S. Steven son, Lewis A. Dibble, E. Sheldon Stewart, Richard E. Pritchard, William E. S. Griswold, Sr., John H. Trumbull, Peter M. Fraser, John B. Byrne and Robert H. Knowlton.

Quigley, board chairman, said the completely equipped plant would probably be ready for operation early in by Ralph C. Donovan of Waterbury.

January, 1956.

The Mattoon unit will be managed

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NEW HAVEN 11, CONNECTICUT CREATION of a hydroelectric operating division within The Connecticut Light and Power Company, as well as several personnel changes, were announced by Sherman R. Knapp, president of the utility.

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The new division will consolidate the company's hydroelectric facilities on the Housatonic River into a single operating unit to be known as the Housatonic Hydroelectric Division. Kenneth F. Beckley, presently New Milford district engineer, has been named superintendent of the new division.

Heading the list of personnel changes announced by Mr. Knapp is the appointment of Henry E. Smithwick, presently Litchfield manager, to be district manager at New Milford. He succeeds E. Harold Keeler, who has retired after 45 years of service.

A NEW synchronous timing motor has just been added to the line manufactured by the R. W. Cramer Co., Inc. of Centerbrook. Designed for high volume applications such as appliance timers, vending machines and animated displays, the motor is designated Type

According to the manufacturer, right, left or oscillating shaft rotation is available. The torque rating is 30 in. oz. at 1 rpm. Other features are said to include instant start-stop, truly synchronous operation, and temperature rise of only 43 degrees C.

A NEW SUB-MINIATURE BLOWER L-R #1, is now in production at Ripley Company, Inc., Middletown.

Said to be the smallest practical, self-contained motor blower available, the L-R #1 uses a 1" diameter impeller, and is capable of efficiently moving large volumes of air: 36.8 CFM at 20,000 RPM. Total weight of the blower and motor is less than two and three-quarters ounces. Designed to meet military specifications, it is available in clockwise or counterclockwise rotations.

\* \* \*

ARMSTRONG RUBBER COMPANY, West Haven, the country's fifth largest producer of replacement tires, has announced the introducduction of a new distributor aid, the "Armstrong Budget Sales Plan." This program enables every Armstrong tire distributor to secure a complete sales package which includes advertising, merchandising, operating forms and company financing for retail budget sales.

The company has also organized a complete staff of retail sales supervisors throughout the country to assist its distributors in increasing their own retail sales volume and the sales of their associate dealers. This program has been tested and installed during the past few months by various distributors from coast to coast.



SERVICE to the community has been a by-word with the Raybestos Division of Raybestos-Manhattan, Inc., who over the years have contributed many fine programs to the town of Stratford, site of the Raybestos plant.

Among them are the company's sponsored four Little League teams; four farm Little League teams; Knot Hole Club for boys and girls; two sponsored Sea Scout Ships; a Junior Achievement Company; the Charity Softball Bowl and the Benefit Basketball Tournament.

One of the feature attractions for the past six years has been the annual Employee Community Service Award and Fireworks Display, held again this year on July 4th at Raybestos Memorial Field.

Following the theme, "A Community is Proud of a Full Time Citizen," the Raybestos Employee Community Service Award is presented annually to an employee who has done most for his or her community outside of regular working hours.



AN EXCITING DEVELOPMENT in the electric clock business has been announced by the William L. Gilbert

Clock Corp., Winsted. The company has developed a new electric motor that will enable the production of a smaller, less expensive electric clock than it has heretofore been possible to produce.

It operates on one and one-quarter watts, 60 cycle alternating current and uses about half the current of a conventional motor. By using the repulsion effect of electricity on a permanent magnet, loss of power resulting from the use of shading coils has been eliminated and the size reduced to one-third of any other conventional motor. It is designed in such a way that it will only operate synchronously. An ingenious device insures the motor's running only in the proper direction.

The motor will shortly be used in a new, volume-priced electric clock line for Gilbert, and will also be available to the fit-up and advertising display market.



PRESIDENT Walter C. Thompson of The Torrington Company has announced the election of a new director and several officers at the recent quarterly meeting of the company's Board of Directors.

Theophil H. Mueller, assistant to the president, was elected a director to fill the vacancy caused by the resignation last December of R. B. Nichols.

These administrative changes were also announced: Milton E. Berglund, vice president of manufacturing, was named executive vice president. Lawrence W. Smith, previously an assistant to Mr. Berglund, was elected vice president of manufacturing.

Byron T. Virtue was elected vice president of engineering, a newly created office at Torrington. The position of vice president of sales was filled by the election of Edward B. Thompson,

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The new Town Hall in Somers, Connecticut was equipped with office furniture from Barney's. According to a member of the Town's Building Committee: "Not only was Barney's able to supply us with the type of equipment we wanted at a lower price, but every courtesy and service was extended to us from start to finish".



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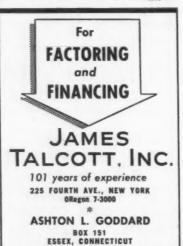
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formerly sales manager of the Bearings Division. William R. Reid, Jr. was elected assistant secretary and general sales manager.

Floyd A. Pearce was elected vice president of finance and will hold this office as well as treasurer of the company. Walter Hudson was elected an assistant treasurer and Ray E. White, previously assistant treasurer, has been appointed to the newly created office of controller.



A NEW 40-page catalog covering their complete line of trunk hardware has recently been published by J. H. Sessions and Son, Bristol. The catalog contains illustrations of their complete line of hardware and luggage accessories and states that the company is also equipped to produce special hardware or stampings. A four-page folder is also available from the company on their line of standard fibre and plywood box and crates hardware.



FIFTY top corporate executives and ranking accounting and business experts appeared as speakers, discussion leaders and session chairmen at the 36th International Cost Conference of the National Association of Cost Accountants, held recently at The Waldorf Astoria.

The program dealt with a wide range of the problems and phases of industrial accounting, and placed special emphasis on the newly-developed concept of "management accounting" and data processing.

E. J. Hanley, president of the Allegheny-Ludlum Steel Corporation, Pittsburgh, delivered the lead-off address which considered the difference in the needs of management and the readers of published financial reports for accounting data. William C. Wichman, vice president and general manager, Industrial Power Components Division, General Electric Company, Plainville, also addressed one of the sessions.

\* \* \*

**DONALD W. NEWMAN** of Cheswick, Pennsylvania, has been awarded the Heppenstall Memorial Scholarship for 1955.

The scholarship, valued at \$3,000 covers a four-year course at Pennsylvania State University. Such an award is made each year to the son or daughter of an employee of Heppenstall

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THE HOWARD COMPANY

250 Boulevard, New Haven, Conn. SPruce 7-4447 Company, steel forgings manufacturer. It is a memorial to C. W. Heppenstall, Sr., president of the company from 1923 to 1939.

\* \* \*

IN A MOVE to demonstrate the ability to print and finish textiles profitably in the New England area Leona Mills, Inc. and Fastex Printing and Dyeing Corporation have been formed with plant and facilities to be located in Sterling. Building space in excess of 100,000 square feet has been purchased and modern streamlined machinery to process all steps from printing through finishing has been installed.

The plant will be operated under the direction of Harry Levy, president of both firms and Bernard Golding, who will take direct charge of setting up the the plant and managing operations.



SCIENCE STUDENT'S from Naugatuck and Waterbury visited Naugatuck Chemical Company recently for a firsthand introduction to the chemical in-



A GOLD BEATER'S HAMMER of the type he used nearly a half century ago is held by E. L. Dexter (left) Refining Department Manager of The J. M. Ney Company, dental and industrial precious metal manufacturers, Hartford. Mr. Dexter is congratulated on his 50th anniversary with the company by C. L. Heath, secretary and assistant treasurer.

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dustry, as part of Naugatuck's participation in the second annual observance of Chemical Progress Week.

The story of Naugatuck's contributions to the chemical industry, and the part this industry plays in the economy of America, were also presented to borough civic groups during the week by speakers from Naugatuck Chemical.

\* \* \*

THE BOARD OF DIRECTORS of Plastic Film Corporation, Plainfield, has announced the election of E. V. Disch and Rene Arsenault as vice presidents. Mr. Disch joined the company in 1946 in the production department and became assistant general manager in 1953.

Mr. Arsenault joined Plastic Film in 1948 as a salesman covering New England and became sales manager of consumer products division in 1953.

The corporation makes a varied line of products including packaging materials for the government, industrial products for the New York Times Corporation, supported vinyls for the automotive industry and a luggage covering for one of the largest luggage manufacturers in the country. They specialize in coated and printed knit fabrics for the infant wear and wearing apparel fields.

\* \* \*

A NEW PLANT to manufacture Turbo plastic insulated wire and cable and electrical insulating tubing was dedicated recently at North Windham by William Brand, president of William Brand & Co., Inc. of Willimantic.

The William Brand & Co. are suppliers to the automotive, aviation, business machine, communication, electric, electronic and associated industries. This addition makes possible the continued growth and expansion of the corporation founded 35 years ago.

The new building, an approximately 60,000 square feet "daylight plant", was engineered to provide the maximum of safety and comfort. The manufacturing areas are fully sprinklered, with automatic fire doors and explosion-proof electric lighting fixtures. All equipment is supplied with the latest safety devices.

William Brand & Co. was formed in New York City in 1920 for the purpose of importing varnished cotton tubing and fabricating mica parts for

WATERBURY, CONN.

MACHINE TOOLS & PRODUCTS CO., INC.

2000 MAIN ST.



THIS NEW PLANT of William Brand & Co. in North Windham, is equipped with wire and tubing extruders of the latest design, as well as the most modern high temperature ovens for the production of silicone and silicone rubber coated fibrous glass sleeving.

resale to radio and automobile manufactureres. In the mid 1930's it became apparent that the European sources of supply would become less dependable and plans were laid for the establishment of an affiliated com-pany. This plant started operation in 1939 in Willimantic with 37 employees. Currently 250 people are employed.

Today increased emphasis is being placed on research and development.

Laboratory space has been increased from 1,500 square feet in the old plant to almost 3,000 square feet in the new structure.

THE APPOINTMENT of David W. Brown as director of research and engineering of The Safety Car Heating and Lighting Company, Inc., has recently been announced. He succeeds Robert B. Seidel, who recently was elected vice president and general manager of

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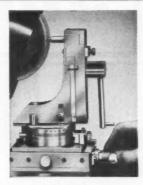
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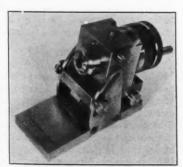
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the Automatic Temperature Control Co. Inc., a subsidiary of The Safety

Company.

Mr. Brown, who recently joined The Safety Company as assistant chief engineer, was formerly chief engineer of the Refrigeration Division of The Ultrasonic Corporation, Cambridge, Mass. He is a native of Boston and received a B.S. degree in electrical engineering from Massachusetts Institute of Technology and received his Masters Degree from the Harvard Graduate School.

Mr. Seidel, in his new capacity as vice president and general manager of the Automatic Temperature Control Co., Inc. will be located in Philadelphia. In his new assignment he will have complete responsibility for all operations of ATC. He received a B.S.

in electrical engineering from Cornell and a Masters Degree in electrical engineering from the Case Institute of Technology.

\* \* \*

THE GRAY MANUFACTURING CO., Hartford, producers of Audograph Soundwriter dictation equipment, PhonAudograph central dictation systems and specialized communications devices, has appointed Donald Hamilton, Jr., general sales manager, it has been announced by Walter E. Ditmars, president.

Mr. Hamilton will be responsible for marketing, distribution and service policies of the company for Audograph and allied products. He will devote a considerable portion of his time, Mr. Ditmars said, to "broadening Gray's national sales and service program."

A graduate of John Hopkins University, Mr. Hamilton's most recent position was that of general sales manager of the Edison Voicewriter Division of Thomas A. Edison, Inc.

\* \* \*

NATIONWIDE ATTENTION is being drawn to a new technique in highway safety developed with the help of C. R. Burr & Co. in Manchester. An illustrated article in LIFE magazine recently described how rose bushes, planted along the sides of highways, can cushion the shock of vehicles which run off the road and thus minimize injuries and deaths.

The Burr company, one of the nation's largest growers of nursery stock, has cooperated with Andrew J. White, director of Motor Vehicles Research, Inc., of South Lee, New Hampshire, in the development and testing of this unique safety method.

The rose bushes used are not the fancy hybrid tea roses familiar to most people but a far tougher variety called Rosa Multiflora Japonica. For years Burr has been the leading grower of this variety and has shared in the development of the plant as a farm fence and as a hedge for suburban home landscaping. Its exceptionally dense growth, which reaches 8 to 10 feet in height and width at maturity, is so tough and resilient that it can absorb the impact of an automobile traveling at 29 miles per hour and bring it to a stop in 32 feet.

Testing has been carried on in Manchester by driving a car off the highway and into a dense growth of the multiflora rose bushes. If future tests prove as successful as those in the past, the U. S. Government will encourage states to plant these bushes along the roadside to improve both highway safety and the beauty of the landscape.

\* \* \*

NORMAN LEEDS, JR. was elected to the Board of Directors of Raybestos-Manhattan, Inc., at the recent annual meeting of stockholders in the Hotel Biltmore, New York. Mr. Leeds is factory manager at the Raybestos Division in Stratford. He joined the company in 1926 following his graduation from Yale University, where he majored in mechanical engineering.

li



Other personnel appointments which have been announced by General Manager William S. Simpson are Robert L. Cleveland, Jr. to chief industrial engineer of the Raybestos Division in Stratford; Frederick S. Daly to succeed Mr. Cleveland as general foreman, and William J. Griglock to succeed Mr. Daly as chief production control supervisor.

\* \* \*

FULLER F. BARNES, industrial and civic leader, died at Bristol Hospital, Saturday June 18. He was president of the Associated Spring Corp. from the time of its organization in 1923, and chairman of its board of directors until his resignation in 1954.

Mr. Barnes had been active in the management of many corporations. He was formerly president of the Wallace Barnes Co. He was a director and member of the executive committee of the Southern New England Telephone Company since 1936. He was also a director of the Connecticut Light and Power Co., Veeder-Root, Inc., the E. Ingraham Co. and the Bristol Brass Co.

Also prominent in association activities, Mr. Barnes has served as a director of the National Association of Manufacturers, the Manufacturers Association of Connecticut and the Hartford County Manufacturers Association. He was president of the Spring Manufacturers Association, a member of the Society of Mechanical Engineers and the Society of Automotive Engineers.

He was active in the affairs of his city and state, serving as a State Senator from 1929 to 1933. He was a member of the State Board of Finance and Control and of the committee in charge of the construction of the State Office Building.

He is survived by his wife, a son, Carlyle F. Barnes, two daughters, Mrs. Paul W. Adams and Mrs. William S. Bristow, his brother, Harry Barnes, and eight grandchildren.

\* \* \*

A NEW CONCRETE-TYPE industrial flooring and construction material that "gives" without cracking under heavy loads, dampens shock and noise, resists alkalies and mild acids, is waterproof and has a non-slip quality, has just been developed by Naugatuck Chemical division, United States Rubber Co.

The material is a combination of liquid rubber and a special cement

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powder and is called Laticrete. The rubber content is said to make it so flexible when hard that a long, thin slab can be bent into a circle by hand. The rubber also gives the cured mix "bounce" and a tight bond that makes it resist breakdown under heavy use. Test patches in factories show virtually no wear after two years of high-volume

The concrete-rubber mix is a surface coating and can be used for repair work or in new installations. It is said to have good adhesion to concrete, metal and even glass.

Laticrete comes in two parts-the powder and a liquid rubber-and is prepared like regular concrete. Standard masonry equipment is used both

to mix and apply it.

In development for the past six years, the material is now being evaluated by approximately 60 companies. It was pioneered by the rubber company's Canadian subsidiary, Dominion Rubber Co., Ltd., and a number of test installations have been made in Canada.

The test applications include repairing worn concrete floors, installing new floor toppings, cushioning pads for heavy machinery, protecting floors and equipment subject to chemical attack, putting non-skid surfaces on ramps used by fork lift trucks, waterproofing the interiors of storage tanks, patching damaged concrete walls, putting a noise-deadening layer on hardsurfaced floors, eliminating dusting conditions on floors in food and drug plants and also in hospitals.

SEVERAL NEW MACHINE TOOLS, developed by Pratt & Whitney Division Niles-Bement-Pond Co., West Hartford, will be exhibited in operation in Space 1219 at the Machine Tool Show to be held this September in Chicago.

A new design Die Sinker, which has been added to the company's well known line of Die Sinking Machines for the drop forging industry, is capable of handling heavy dies with unusual ease under hand operation, and is equipped with a hydraulic duplicator for tracer control operation, will be part of the company's exhibit.

Also, a Numerically-Controlled Jig Borer, in which numerical information is fed into the machine to cause the work table to automatically position itself to .0001" accuracy; a new 48 inch Precision vertical Rotary Table, designed especially for inspecting large, heavy workpieces and to provide precise work location on heavy equipment for boring, facing and other machining operations.

A new model BL Keller Tracer-Controlled Milling Machine, designated the BL 3622, Model C, will also be displayed for the first time. This new machine retains all of the basic Keller features that have won widespread recognition throughout industry for accurate and low cost production of dies, molds, prototoypes and many other jobs requiring the accurate duplication of complex irregular contours.

The exhibit will also feature the newly developed duplicator, the 'Velvetrace" Milling Machine, which is capable of reproducing the finest details of virtually any 3-dimensional model to an accuracy previously not obtainable: and a new Vertical Precision Hole Grinder. Designated the No. 2E, this machine is designed to grind straight or tapered holes and radii with extreme accuracy in size and position in a fast, easy operation. The No. 2E differs from conventional grinders in that the work is strapped to a table and does not revolve.

#### THOMAS W. HALL COMPANY INCORPORATED

Stamford, Connecticut



Printing, Newspaper & Lithographing Machinery Paper Converting Equipment Iob Presses, Galleys & Cabinets Proof Presses, Balers, Cutters



#### \* \* \*

UNDERWOOD CORPORATION, Hartford, has taken the first major step toward realization of a projected expansion program, including the construction of an industrial park containing one of New England's largest and most modern manufacturing plants.

This was announced recently by L. C. Stowell, president of Underwood, upon acknowledging a one-year option on a 420 acre tract of land located in Hartford's South Meadows section. The area includes what is now Brainard Field, one of the nation's first municipal airports.

According to Mr. Stowell, the action climaxed many months of study by Underwood Corporation to determine the optimum location and conditions for its planned expansion. The company, which manufactures a complete line of business machines, has conducted its typewriter operations in Hartford since 1901. Its Capitol Avenue plant, with 23 acres of floor space, is the largest typewriter factory in the world.

The projected plant, Mr. Stowell said, "will have the most up-to-date facilities, which will contribute to increased efficiency in production and to the greater welfare and comfort of our employees. It will not be just another new and modern factory, but part of an attractive industrial park that will enhance the area and be a real contribution to the community," he said.

According to Mr. Stowell, the com-

According to Mr. Stowell, the company investigated possible locations in many parts of the country. "After all factors were reviewed, the decision was made that it would be best for employees, customers and stockholders to have Underwood remain in the community which has become identified with our products and of which we have become a part.

"We know from experience that Connecticut craftsmen skilled in the art of making quality business machines are available in the Hartford area. We feel a confidence in the industrial future of Hartford, just as we know our company will continue to grow and prosper in the years to come," Mr. Stowell said.

#### Selling In 1955

(Continued from page 17)

Second, the product must be made at competitive costs, not only in terms of what people can buy similar products at, but if it is an entirely new product, in terms of what people might be willing to pay for it. Your cost of manufacture, then, must compete with other costs of manufacture or with the other many pressures on the available purchasing dollar. So cost of manufacture, which is the basis of what you must charge for a product, is also a selling consideration. The allowable cost of manufacture is ab-



ARCHITECT'S RENDERING of one possible concept of Underwood Corporation's proposed new plant for the Brainard Field-South Meadows area of Hartford.

## Why this

## PROFIT-SHARING PLAN

# Fits the NEEDS

## of so many Businesses

Here is a profit-sharing and retirement plan designed to make allowances for the ups and downs of business profits from year to year.

As a result of this feature, plus other important advantages, the Connecticut Mutual plan fits the needs of many businesses unusually well. Businessmen like these features: no large initial outlay — no payments by your company in profitless years —immediate death benefit to employees' families — retirement benefits to employees — important tax economies for the company, employees and their families.

Why don't you find out more about this unique plan. There is no obligation. We will be happy to send you a copy of our booklet, "A Profit-Sharing and Retirement Plan".

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solutely determined by the people in your market.

Third, products must be packaged and displayed for effective selling. Our market is a complex and, at times, a capricious one. It not only is sophisticated in terms of product values, but it has taste and a sense of style. It wants its things to look good and to be dressed properly. So products compete with each other in their intrinsic qualities, and also in their external qualities. The American market is a package-conscious, convenience-conscious, and appearance-conscious market. And these externalities are important selling factors. They had better be included most of the time.

Fourth, you can have the best product in the world and a team of the most persuasive salesmen, but you are not going to get your share of the market unless you use the right channels of distribution. The right channels of distribution are not necessarily the ones you've always used or the ones longest in business. They are the ones that can effectively carry your lines to those market centers where most people gather at most times to buy products of this character. This seems like an obvious observation, but I assure you from long experience I have learned that distribution lines are being crossed everday because of the changing buying habits of the American market. Think of the expansion of the related lines of chain drug stores, automobile accessory stores, and super markets, to name but a few. In this connection I would say that dynamic selling must move with and even anticipate changes in distribution patterns, and distribution must become as free of tradition as are the buying habits of the market.

Fifth, while it is commonly said that the American people are the most over-advertised and over-promoted people in the world, advertising and promotion are in the very nature of the market. In selling this market, the competition is fierce, but it turns not only on price, quality and availability, but on advertising and promotion as well. If you look backwards on the long road of American business you will recall the names of brands, once successful and accepted, that withered away because their advertising was suspended. So this selling job we're talking about involves the support of advertising and promotion. This does not mean I am advocating a formula of advertising or the use of pre-conceived

ideas or the imitation of what everyone else is doing. Advertising and promotion can better be summed up in the single word "communication." In other words, selling requires communication. The market wants to hear about the product, its virtues, its qualities, its prices, and the seller must find effective ways to communicate this knowledge.

#### Originality Important In Winning

In addition to these factors that I consider part of the all-embracing selling job, I believe there must also obtain an ability to move, not as an echo, but as an innovator in this multifaceted American market. We have noted some of the changes that have occurred. We must also anticipate and be prepared to meet the changes of tomorrow, whatever they might be. Indeed, effective and imaginative selling should be a catalyst of change.

This prescription involves an attitude of doing business. To meet the challenge of the future, everyone in the business of making and selling goods and services should attempt an appraisal of what that future is going to be. We hear of the increase of automatized industry, for example. It intrigues us as it does all Americans. But if we are going to be up there in front ready to sell and serve a population working in an automatized industry, we had better try to understand what changes will take place in that population. We know, for example, that increasing automation will increase the number of skilled workers in America, and with that increase there will be a commensurate increase in the number of families in the \$3,000 to \$10,000 a year group. I think that will happen and I think that defines for me a kind of selling target.

We have a highly inventive industry that seems capable of developing everything out of anything. The seller of the future had better be fairly well informed on the developments of new materials and new methods of making things. This market will accept what is new. Those of us ready to serve its curiosity and its new tastes will have a very definite selling edge.

Selling—successful selling—in 1955, '56 and '66—is a complicated operation, depending upon an awareness of what is happening in the social and economic aspects of our population. It requires a grasp of market information and of those elements which make

up the American character. It asks that our business enterprises be daring and assumes risks in hazarding the new. It requires that sellers be armed with knowledge that can be used to design, to make and to use goods.

In a word, selling in this epoch of America's greatness does not begin but only ends with a pencil and order

book.

"Always learn a lot on BIE Day. Look forward to the next year."

"Yes, I do. I had no idea as to how such an organization as this conducted its business. As a result of my tour, I fully understand how a business of this type functions."

"It creates pride in our community,

knowledge of its problems and I hope mutual respect."

"It was a wonderful experience to meet the various officials and workers and to observe the harmony and kind spirit which existed throughout the entire concern."

#### New Haven Holds Sixth **BIE Day Conference**

(Continued from page 11)

COMMENT. "The relationship developed between industry and school system is better understood through these visiting days."

"Yes. It creates a much needed opportunity to many social classes for better understanding of everyday community and social problems."

"The free interchange of opinion around a small luncheon table is the best feature of the whole thing.'

"Through BIE Day the teacher has a better understanding of how business and industry serve our community.'

"Many places cannot have children visiting so teacher gets a chance to. Explaining to class also tells the children what opportunities for jobs will be open to them when they need them."

QUESTION. How would you rate today's experience in comparison with the usual tour of a business firm?

"Much preparation COMMENT. went into plans for our visit as I noted the program-first hand sources material so different than I had imagined or could get from an advertising pamphlet of same."

"I was treated as a privileged guest with special consideration for my comfort. We were warmly received by the President and other executives of the company.'

"Management leaned over backward to help us understand their problems and explain all phases in their operation."

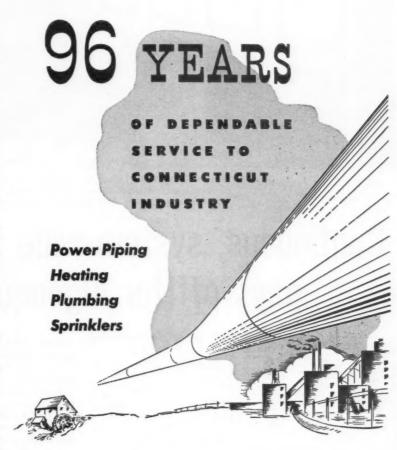
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"I have enjoyed each of the six BIE Days. It is very hard to compare them."

QUESTION. Do you feel that the day was worthwhile?

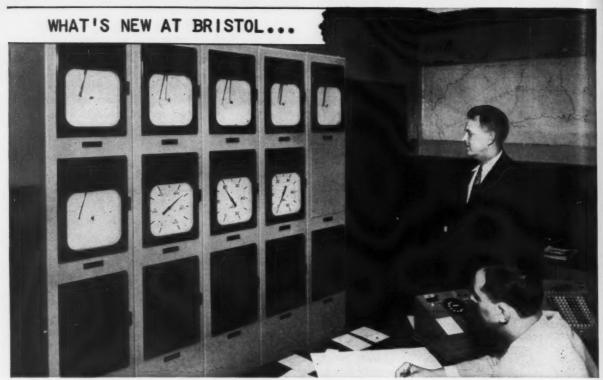
COMMENT. "It is always worthwhile for any one, but especially for teachers, to see the world from another viewpoint."



## The FOSKETT-BISHOP PIPING Ca.

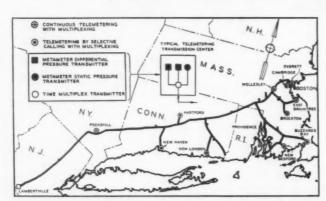
Piping Contractors Since 1858

NEW HAVEN, CONNECTICUT, SPruce 7-2338



**EASY-TO-READ** Bristol Metameter Telemeters at Algonquin Gas continuously record information on twelve measurements of static and differential pressures in the Boston area. Bristol Multiplex receivers (bottom row) segregate incoming signals and direct them to proper receivers.

# Continuous, system-wide telemetering pays off for Algonquin Gas



MAP SHOWS Bristol telemetering equipment on the Algonquin Gas Company's pipeline.

Every gas company sells two commodities. Gas — and service. Reliable service. Service that builds confidence. Service that turns prospects into customers, customers into friends.

How to achieve this kind of service? The Algonquin Gas Transmission Company of Boston finds the answer in a Bristol Metameter. Multiplexing Telemetering system. With the help of the Bristol installation, Algonquin can supply gas to its customers at pressures which the customers have determined are best for their operation—with an absolute minimum of service discontinuities.

Why Bristol equipment? Because Algonquin felt it was simply good business to deal with the acknowledged leader in telemetering equipment. Let us tell you how Bristol's 65 years of instrument experience can help you, too. Write for Bulletin M1710 to The Bristol Company, 163 Bristol Road, Waterbury, Conn.

MADE IN CONNECTICUT

BRISTOL'S

BRISTOL

POINTS THE WAY IN
HUMAN-ENGINEERED INSTRUMENTATION

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS



## **PUBLIC RELATIONS**

BY A. F. KACYNSKI Public Relations Director

communications" is perhaps the most important word in the vocabulary of our times. In its finest and broadest sense it represents complete understanding between people.

Communications for an association, such as MAC, involves at least two essentials. It speaks and acts for industry through all media and at levels that cannot be reached by individual companies. More personally, it assists local industry to contribute to the whole program in their individual communities.

Public relations begins at home. So it is with the MAC. This year all companies received an illustrated brochure called "Service To Industry." It was an effort to communicate with members about the many services the MAC staff can perform and stands ready at all times to perform. To maintain a close contact a new column in "Connecticut Industry" will carry an intermitent series of outlines of the many services under the masthead of "Services To Industry."

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Proof that the MAC considers the word communications important can be found in its newly adopted "Affirmation of Purpose." One of the objectives in that statement reads, "To help Connecticut manufacturers develop a full understanding of their broadening social and economic responsibilities to the public; and to maintain effective channels of communication to help the public, in turn, to understand industry's contribution to the economic and social welfare of the people of the state.

Personal communications is a technique that will bring better results than the transmission of written or spoken messages. Through selling efforts in the field, the membership roster of the MAC now contains about 1,400

companies. There was a big growth during the past six months and it is directly attributed to the technique of introducing the Association personally to prospective members. To keep you "in-touch" with us, our field man will probably come your way one day to ask, "How's Business?"

To reach executives and public relations people in industry, a new bulletin under a public relations masthead has been added to the many distinctive bulletins already being mailed to members. The public Relations Bulletin joins the acceptable list of bulletins such as Business Roundup, Taxation, Transportation, Foreign Trade, Congressional Digest, Industrial Relations,

Connecticut General Assembly, Connecticut Observer in Washington and General. All of these communicate to members special messages and information in tune with the times and changing conditions.

Communicating with Legislators is an important and unusual opportunity for the MAC. That is true especially when the General Assembly is in session. As MAC speaks for industry as a whole, it presents an oral and written commentary of factual and statistical background on issues as they relate to industry. Taking an additional step in its communications, the Association makes this same information available to editorial writers, reporters, columnists and radio commentators.

An example of this can be found in the recently published brief but comprehensive pamphlets on Unemployment and Workmen's Compensation which were designed for legislators but were also presented to the press and radio of Connecticut and over 300 community groups throughout the state.

Another "must" activity is publicity properly adapted to magazines, news weeklies, special publications, newspapers and radio. Publicity is perhaps the most versatile tool of public relations. Publicity from the MAC usually

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Tel. JA 2-8254 Tel. JA 2-8255 106 ANN STREET • HARTFORD, CONN. takes the form of news released to press syndicates, newspapers, radio and television. Sometimes it is feature material for Sunday supplements or radio. Sometimes it may take the form of pamphlets, brochures or direct mail. Communication is a basic force which must be used constructively. With the MAC publicity is never Barnumesque ballyhoo. Contrarily, it is communicating information to produce social enlightment.

#### Miller Company Installs New Annealing Furnace

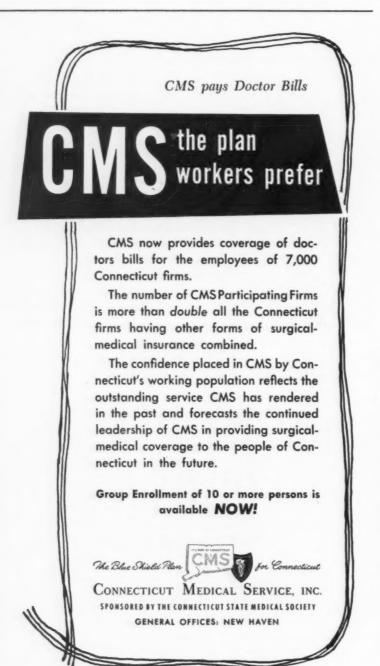
(Continued from page 13)

travelling crane that is used to raise and lower the heating bells and to move the metal to and from the annealing bases.

Annealing with this type of equipment utilizes a controlled atmosphere, principally nitrogen. The nitrogen is generated in a separate unit specially designed for the combustion of fuel gas so as to leave it free from oxygen and sulphur and reduce the moisture content practically to zero. Throughout the annealing cycle this gas is used under the inner cover to protect the finish of the metal by preventing the formation of surface oxides.

Metal to be annealed is loaded on racks, picked up by crane and placed on the furnace base. The alloy steel inner cover is lowered over the metal and is sealed in oil and water at the base prior to the introduction of the nitrogen atmosphere. After the oxygen is removed, the heating bell is lifted into place and lowered slowly. Heat is transferred to the inner cover through gas-fired radiant tubes, and circulated inside the cover by a high velocity fan in the base. When the proper temperature is reached, the heating bell is removed and a cooling bell is placed in position. This circulates cool air about the inner cover. At 500°F a water spray is introduced, for faster cooling. When the metal is sufficiently cool, the inner cover is removed and the charge is unloaded. Temperatures throughout the annealing cycle are automatically controlled. Each anneal is charted on a modern electronic instrument panel. This makes possible a more rigid control of the temper of the metal.

During the summer months, complete new metal cleaning facilities will be put into operation, to be followed later by new rolling and casting equipment. Ultimately this Division will be one of the finest equipped small mills in the brass industry, even better able to serve its many customers throughout the country with the highest quality phosphor bronze and brass sheet and strip; which is used for the fabrication of a broad range of consumer and industrial products.



#### **BUSINESS TIPS**

from

School of Business Administration University of Connecticut

## The Workerless Factory — A Figure of Speech \*

Since 1947, when the Ford Motor Company renamed a section of production engineers, whose job was designing work-handling devices, the automation department, the term "automation" has become increasingly popular. Some view "automation" as the key to increased productivity, a richer life, easier and more enjoyable work, and an increasing level of living. Others view "automation" with alarm, visualizing workerless factories, mass unemployment, and mass misery.

The difference in views is complicated by the fact that the term means different things to different people. To some, "automation" means any type of advanced mechanization such as in the automobile industry. To these people "automation" is primarily the integration of machines with one another and the substitution of machines for men, especially in materials handling. This type of "automation" is new only to the extent of its name. The idea is hundreds of years old. Back in 1784, Oliver Evans built a flour mill that was virtually automatic. That is, the wheat went in one end and was transported by conveyors through the process (without human effort) until it emerged as flour. For those who view "automation" in this sense, its promise and problems are not unique.

To others, "automation" denotes a wholly new technology. It refers to mechanization of a special sort—the self-regulation of the processing, material handling, and inspection func-

le

tions of an entire operation. The concept of the feedback or closed loop control is basic here. The governor on the steam engine was one of the earliest automatic control devices invented. Perhaps feedback control can be illustrated by the home thermostat which automatically controls the furnace depending upon room temperature. As the temperature in the room rises above the thermostat setting the thermostat acts to start the furnace and increase the temperature and conversely this interdependence of action is typical of feedback control. It is this type of "automation" that has caught hold in industry in the last decade and has caused some people to talk of a second industrial revolution and workerless factories. The speed of this development is causing "temporary dislocations" which are serious.

Reports of "automated" installations have been particularly startling because of their emphasis on labor saving. One often sees reports like, "Ten workers are now required instead of one hundred," or, "the entire project is operated automatically by a series of switchboards which extend for an unbroken ten miles-Humans average two to the mile." The statements carry connotations which are not necessarily valid. To some, these reports connote tremendous increases in efficiency and cost reductions. It is unfortunate that the increase in expenses like depreciation, interest, and maintenance should not be mentioned along with the savings such as labor productivity and improved quality of the product. It is, after all, the reduction in total costs which is significant. (It is not meant to imply that total cost comparisons would be easy to make. One problem would be ascertaining the future life of the equipment which would of course be subject to error.)

This emphasis on labor savings has brought to the fore fears of chronic unemployment. This fear is not new, of course. Some three hundred years ago an inventor in Danzig built a loom that could weave six webs at once and the authorities suppressed it to protect the "poor". Not satisfied, the poor seized the inventor and drowned him. And during the great depression of the 1930's a Congressman said, "Science and invention are to blame for the



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<sup>\*</sup>Paul F. Fagan, Instructor, Dept. of Industrial Administration, School of Business Administration, The University of Connecticut, Storrs, Connecticut.

present unemployment in America." The argument of those foreseeing chronic unemployment resulting from technological change is both simple and fallacious. If factory A buys ten machines doing the work of fifteen workers each, 150 workers are laid off. If ten companies do likewise, 1500 workers are laid off, etc. If we have workerless factories we have mass unemployment. The fallacy of this reasoning, of course, is that generalizations are made from particular facts without viewing the economy as a whole. It neglects to analyze the effects cost saving equipment have on the sales volume in the particular industry

and all others. It neglects to analyze the employment possibilities in the industry making the equipment, new industries, and other established industries. The relationship between mechanization or "automation" and unemployment is not simple but there is no valid evidence that machines cause permanent unemployment. Few, if any, respected business leaders, economists, government officials, or labor leaders hold this to be so. The late Philip Murray's statement that, "I do not know of a single solitary instance where a great technological gain has taken place in the United States of America that it has actually thrown people out of work," is typical of their thinking in regard to the long run effects. Since there is agreement on the long run effect, it is unfortunate that there isn't a better meeting of the minds on the short run effect.

The rate at which "automation" is applied to industry does however affect the short run problems. It is with these problems that the energy of all concerned should be focused. It is obvious that particular workers oftentimes will suffer when "automation" is applied to an industry. The problems facing these people and the society in which they live are most serious. It often means temporary loss of income, seniority rights, pension rights, loss of the value of a particular skill that "automation" has rendered obsolete. It might necessitate relocation of one's home, giving rise to further problems. All of these problems have been incurred before but perhaps not to the extent that the present rapid application of "automation" is causing. It is the transitory problems of technological change that has prompted Walter Reuther to say, "the guaranteed annual wage is not a panacea, but it is the single most important factor in dealing with problems arising through automation.'

What, then, can be done to minimize the impact of "automation" on the particular worker? Since "automation" results in the need for different skills-more engineers, technicians, and skilled maintenance men -an extensive training program carried out by the effected companies is mutually beneficial. Further, when discharges are unavoidable, management should make the "temporary dislocation" as painless as possible by giving maximum advance notice to affected employees and by assisting them in finding employment elsewhere. Termination pay and Unemployment Insurance payments, of course, ease the financial burden of temporary unemployment. Finally, the educational institutions should be geared to the needs of this dynamic society.

"Automation" will, no doubt, move forward and we will have *some* factories with a limited number of employes, but the "Workerless Factory" as typical in industry belongs in science-fiction. Indeed, if all goods could be produced without human effort we would live in a Utopia where the primary problem would be one of allocation of these goods.

# IT WORKS for REMINGTON ELECTRIC SHAVERS



A LEEDS CONVEYOR applied at Remington Rand, Inc., Bridgeport, Conn. for production of Electric Shavers.

The Leeds Conveyor Manufacturing, Co.
PROPERLY APPLIED CONVEYORS
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### **ACCOUNTING HINTS**

Contributed by the Hartford Chapter National Association of Cost Accountants to stimulate the use of better accounting techniques in industry.

#### **Budget Control**

OST items of expense, both manufacturing and administrative, can be budgeted. By furnishing management with periodic comparative reports, management will be in a position to intelligently control the expenditures that so often eat into what should be a good profit. A Budget is the only system ever devised which requires the responsible officers to estimate their future requirements and at the same time account for their past actions. The budget is the best financial control possible for most types of operation. The budget should be constructed exactly in line with the chart of organization and therefore synonymous with the accounting system. A budget assures these three fac-

1. Provides the basis for excellent internal control at all levels.

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- 2. Provides for comparisons between estimated results and actual
- 3. Assures an integrated program.

Budgeting in business formulates a program of sales, production and finance which assures management that a plan is being followed which will insure an approximately known profit. Budgeting controls coordinates sales, production and all activities of the business, thereby focusing attention on the whole organization.

Without budgets, where expense items are not sufficiently detailed, quite often the mistake is made of trying to reduce the total expense, when perhaps use of some items should be increased because they have a direct relation to increased sales or to greater reduction of other costs.

It further serves to educate all minor

executives in the purposes, policies and organization of the entire com-

By using a good budget system, the heads of departments are required to express themselves in clear definite terms which are readily understood by all concerned.

Up until not too many years ago, business records were kept for three basic reasons: to pay employees, to pay vendors for outside purchases and for collection of monies due from customers.

Today, however, things are quite different. Governmental requirements have greatly increased the need for more and more elaborate records. The necessity of filing various and sundry reports with the government has forced

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RICHARD S. A WINSHIP A

Pales and Merchandising Consultant



management into obtaining more information about its business. While all of us are reluctant to file the many governmental reports and none of us likes to pay taxes, we will have to admit that in many ways it has been a good thing for businesses in general that we have been forced to obtain more information.

#### A Helping Hand For Industrial Parts Manufacturers

(Continued from page 12)

#### **Training Program Essential**

Selection of the sales agent is only one step in the creation of the parts manufacturer's sales force. Now, the sales organization must initiate a training program that will make sure each sales agent appointed will have complete information about the products of the manufacturer he will represent. He must know the products' advantages, their applications, and their limitations.

Included in this training program should be a visit to the parts manufacturer's plant, where the sales agent is given an opportunity to study the products he will sell and to become acquainted with the manufacturer's facilities, operations and personnel.

Carrying the training out into the field, the sales organization performing a complete service will have members of its own engineering staff make sales calls with the newly appointed sales agent to make sure he has all the technical information necessary to sell successfully.

Finally, the sales agent should be provided with—and trained in the use of—the manufacturer's catalog files, technical data sheets, promotional folders, visual sales presentations, sample kits and other sales aids which will help him to sell the manufacturer's parts more effectively.

## Follow Through and Promotion Activities

Having selected and trained the sales agents, the sales organization serving the parts manufacturer should then follow through by directing the sales agents' activities in the field to guarantee that they will bring the manufacturer's sales story to as many prospects as possible. One effective way of pre-conditioning prospects to the advantages of the parts manufacturer's products is by developing a mailing list that includes many thousands of the people in the original equipment market who influence the buying. This list should be kept active and up-to-date by the sales organization by continuing person-to-person and mail checks. In some cases lists, designed to meet requirements of individual companies, should be developed. Maintaining close contact with the sales agents in the field at all times, the sales organization should not terminate its activities with the getting of orders, but should work with the sales agents to insure proper servicing of the accounts and to offer advice and assistance that will bring about the customer's complete satisfaction and assure profitable repeat business for the parts manufacturer.



You can tell how each advertisement pulls . . .

- how much each inquiry is worth to you . . .
- whether or not your salesmen are following all leads . . .

## WE OFFER A COMPLETE SERVICE THAT PROMOTES SALES

WE evaluate all leads for you . . .

- keep you fully informed on all inquiries from advertising . . .
- handle all literature requests . . .
- keep salesmen informed of sources of leads in their territories and insure effective follow up . . .
- increase the effectiveness of your mailings by efficiently maintaining and improving your mailing lists . . .

Telephone ADams 3-2614 for complete information

#### THE METAL PRODUCTS SALES COMPANY

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Industrial Ventilating and Dust Collecting Equipment



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Our engineering staff is at your service.

Write or Phone

## THE COLONIAL BLOWER CO.

54 Lewis St. Plainville, Conn. Phone Sherwood 7-2753



Every step of the way, the parts manufacturer may be relieved of timeconsuming details . . . with the sales organization setting up the advertising budget; working closely with the advertising agency to insure the greatest possible return from every advertising dollar spent; providing businessbuilding publicity on product development, and arranging for trade show displays and exhibits. The parts manufacturer also may be relieved of many important clerical services he finds difficult to perform because of limited personnel, such as: Commission breakdowns to sales agents; monthly territorial sales reports; quotation reports and competitive reports that keep the parts manufacturer informed of the status of his products as compared to those of his competitors; filling literature requests, insuring follow-up, and evaluating leads.

Yes, this is an age of specialization. The original equipment manufacturer calls on the specialist in parts manufacture to make parts better and cheaper than he could produce them himself. The parts manufacturer, in turn, calls on the specialist in selling to enable him to make a bigger profit on the sales of his products to the original equipment market by doing a better selling job than he could do himself—and doing it at lower cost.

The net result of this combining of the talents and capabilities of specialists is the ability to offer the consumer a better product at a lower price, a price he can—and will—pay.

#### Yankee Toolmaker

(Continued from page 9)

tion of its 75th anniversary this year. During the Employee Open House, more than 10,000 employees, their families and friends toured the company's sprawling operations. There were an additional 2,000 visitors who toured the plant during Civic and Customer-vendor visitation days which were spread over a period of three weeks. They came from all over the world; France, Germany, Canada, Japan, South America and England to name a few.

Almost every state in the United States was represented by dealers, customers and vendors at one time or another during this period. Civic Days provided local business, industry and civic leaders the opportunity to see at first hand a company that from a

humble beginning in Bridgeport 75 years ago is today one of the largest manufacturers of machine tools in America

Statistics on the Open House are interesting; for instance, the 12,000 visitors walked approximately 23,000 miles or an average of 1.9 miles per person. Cars assigned to transportation of visitors to and from airports, railroad stations and other miscellaneous travel was over 5,000 miles. Approximately 20 companies flew their officials to Bridgeport in private company planes. One, a converted airliner, was equipped with lounges, writing desks and a 12 foot bar for serving light lunches and refreshments enroute.

Twelve thousand feet of half inch rope was required to rope off the tour route during Employees Open House. To answer visitors questions it was necessary to station over 100 guides throughout the plant. Approximately 40 guides served full time during the Civic Days and customer-Vendor visitation period.

In commenting on the results of the anniversary celebration Mr. E. C. Bullard, President and General Manager said.

"It was a wonderful tribute to The Bullard Company and all employees, past and present that so many thousands of people would take the time to visit us during our Open House. It inspires us all at Bullards to live up to and carry on the traditions created over the last three quarters of a century".

#### Bullard's Importance to Bridgeport

The place The Bullard Company occupies in the economy of Bridgeport and the nation is indicated by the fact that since 1917 the firm has paid out over \$223,181,379 in wages with a peak payroll in 1953 of close to \$24,000,000.

The Bullard Company has been woven into the fabric of Greater Bridgeport community life since its beginning. From a thirty by sixty room, it has grown until it will occupy by the end of 1955, over one million square feet of space.

It is indeed hazardous to predict the future but with the history of its past as an indication, there seems little doubt that The Bullard Company is moving toward its Centennial well equipped to maintain its position and to meet the challenges that lie ahead and to play its part in helping to create an even better way of life.

## CONNECTICUT ADVERTISING SERVICES

A DESCRIPTION OF THE PRINCIPAL ADVERTISING SERVICES RENDERED BY LEADING ADVERTISING AGENCIES IN THE STATE

APER

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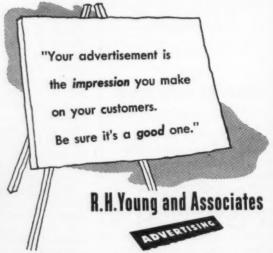
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#### TROLANDING

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EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings purchased by Connecticut manufacturers. Interested buyers may secure further information by writing this department. Connecticut manufacturers desiring to list their products in this department should write the Editor for listing rates.

(Advertisement)

		(200)
Accounting Forms Baker-Goodyear Co The Accounting Machines New Haven	Aluminum Lasts United States Rubber Company Shoe Hardware Division Waterbury	Bathroom Accessories Autoyre Company The Charles Parker Co The Meriden
Underwood Corporation Bridgeport Adding Machines	Aluminum—Sheets & Colls United Smelting & Aluminum Co Inc	Batteries Division of Olic
Underwood Corporation Bridgeport	New Haven	Bond Electric Corporation Division of Olin Industries Inc (flashlight, radio, hearing aid and others)  New Haven
Polymer Industries Inc Springdale	Remington Arms Co Inc and Peters Cartridge Div Bridgeport	Winchester Repeating Arms Co Division of Olin Industries Inc (flashlight, radio, hear-
Lockwood Sons Inc Wm H Hartford	Winchester Repeating Arms Company Division Olin Industries Inc. New Haven	ing aid and others) New Haven
Advertising Plates Lockwood Sons Inc Wm H Hartford	Anodizing	Fafnir Bearing Co (ball)  New Britain
Advertising Specialties H C Cook Co The 32 Beaver St Ansonia	Conn Metal Finishing Co Laurel Electro Plating Leed Co The H A Hamden Hamden	Marlin-Rockwell Corporation Plainville New Departure Div of General Motors (ball) Bristol
Halco Co Aerosol Products Bridgeport Brass Company Bridgeport Bridgeport	Anodizing Equipment	Norma-Hoffmann Bearings Corp (ball and roller)
Air Compressors	Conn Metalcraft Inc New Haven Asbestos	Bellows Bridgeport Thermostat Company Inc (metallic)
Air Conditioning	Auburn Manufacturing Company The (gaskets, packings, wicks) Middletown	Bridgeport
Norwalk Airconditioning Corp The (forced air heating units oil fired) South Norwalk	Asbestos & Rubber Packing	Bridgeport Thermostat Company Inc Bridgeport
The Torrington Manufacturing Co Torrington	Colt's Manufacturing Company Hartford	Bellows Shaft Seal Assemblies
Sikorsky Aircraft Division United Aircraft Cor-	Knapp Foundry Company Inc (bushing &	Bridgeport Thermostat Company Inc Bridgeport
poration (helicopters) Bridgeport Aircraft Accessories	bearing stock) Guilford  Assemblies—Small	Bevin Brothers Mfg Co. Gong Bell Co The  East Hampton East Hampton
Chandler Evans Div Niles-Bement-Pond Co (Piston and Jet Engine Accessories—Carbu-	Barnes Co The Wallace Div Associated Spring Corp Bristol	N N Hill Brass Co The East Hampton
retors, Fuel Controls, Afterburner Regula- tors, Pumps, Servomechanisms and Protek Plugs) West Hartford	Greist Manufacturing Co The Humason Mfg Co The Forestville	Belt Fasteners Saling Manufacturing Company (patented self-
Fenn Mig Co The (Hardened and Ground Gears assemblies) Newington	J H Sessions & Son Bristol  Auto Cable Housing	aligning) Unionville Beiting
Gabb Special Products Div E Horton & Son Company (filler caps-pressure fuel servic-	Wiremold Company The Hartford	Hartford Belting Co Hartford Russell Mfg Co The Middletown
ing systems)  Hamilton Standard Div United Aircraft Corp (propellors and other aircraft equipment)  Windsor Locks	Automatic Control Instruments Bristol Co The (temperature, pressure, flow, humidity, time)  Waterbury	Bends-Pipe or Tube National Pipe Bending Co The 160 River St New Haven
Manning Maxwell & Moore Inc (aircraft pres- sure switches and jet engine afterburner control systems) Stratford	Automobile Accessories Kilbourn-Sauer Company (lights and other accessories) Fairfield	Bicycle Coaster Brakes New Departure Div General Motors Corp Bristol
Russell Manufacturing Company The (CAA approved safety belts; webbing and hardware for safety belts; shock rings and shock cord; ring and cord hardware; webbing for	Automotive Bodies Metropolitan Body Company Bridgeport	Bicycle Sundries New Departure Div General Motors Corp Bristol
all aircraft applications) Middletown Aircraft Instruments	Automotive Parts  Eis Manufacturing Co (Hydraulic and Me-	Binders Board Colonial Board Company Manchester
Gorn Electric Company Inc Stamford  Aircraft—Repair & Overhaui	chanical) Middletown Raybestos Division of Raybestos Manhattan Inc (Brake Lining, Lined Brake Shoes,	Biological Products
Airport Department Pratt & Whitney Aircraft Division Rentschler Field East Hartford	Clutch Facings, Automatic Transmission Parts, Fan Belts, Radiator Hose and Miscel-	Ernst Bischoff Company Inc Ivoryton Blacking Salts for Metals
Aero Form Co New Haven	laneous Rubber) Bridgeport	Enthone Inc Mitchell-Bradford Chemical Co  New Haven Bridgeport
Britton Mig Co Inc The  Aircraft Test Equipment  Hartford	Automotive & Service Station Equipment Scovill Manufacturing Company Dispensers) (Canned Oil Waterbury 91	Black Oxide Treatment Bennett Metal Treating Co The 1045 New Britain Ave Elmwood
United Manufacturing Co Division of The W L Maxson Corp Hamden	Automotive Tools Eis Manufacturing Company Middletown	Bindes
Wiremold Co The (Retractable) Hartford	Bags-Paper American Paper Goods Company The	Capewell Manufacturing Company Metal Saw Division (back saw and band saw) Hartford
Peabody Engineering Corporation Stamford	Kensington	Blocks Howard Company (cupola fire clay) New Haven
Leed Co The H A Hamden	Bakelite Moldings Watertown Mfg Co The Watertown	Blower Fans Colonial Blower Company Plainville
Knapp Foundry Company Inc Guilford	Abbott Ball Co The (steel bearing and burnish-	Spencer Turbine Co The Hartford
Aluminum Castings Consolidated Industries Inc West Cheshire Eastern Malleable Iron Company The		Colonial Blower Company Ripley Co  Blower Systems Plainville Middletown
Newton-New Haven Co 688 Third Avenue	Kilian Steel Ball Corp The Hartford	Joseph Merritt & Co Hartford
Charles Parker Company The Merider Stamford Casting Company Inc (Aluminum	Farrel-Birmingham Company Inc Ansonia	Bigelow Co The New Haven
Stamford Casting Company Inc Magnesium and Bronze) Stamford Aluminum Extrusions Bridgeport Brass Company Bridgepor	Abbott Ball Co The (burnishing and tumbling)	General Electric Company (Residential oil and gas fired steam and hot water) Bridgeport
Aluminum Forgings	Hartford-Steel Ball Co The (tumbling)	Bolts and Nuts
Bridgeport Brass Company Bridgepor Consolidated Industries Inc West Cheshir Scovill Manufacturing Company Waterbury 9	Com Metalogist Inc.	Blake & Johnson Co The (nuts machine screw bolts, stove) Waterville Clark Brothers Bolt Co Milldale
Lapides Metals Corp New Haven	Baskets-Wire	Clairglow Mfg Company Portland (Advt.)
		(114.1.)

Bottle Openers Scovill Mfg Co (steel, anodized aluminum)	Brass Mill Products American Brass Company The Waterbury	Cages Andrew B Hendryx Co The (bird and anima)
Box Board Waterbury	Bridgeport Brass Co Chase Brass & Copper Co Plume & Atwood Mfg Co The Thomaston	Cams New Have
Federal Paper Board Co Inc Montville, New Haven & Versailles Box Board	Scovill Manufacturing Company Waterbury 91 Western Brass Mills Division of Olin Indus-	American Cam Company Inc Hartford Special Machinery Co The Rowbottom Machine Company Inc Waterbur
Lydall & Foulds Paper Co The Manchester Robertson Paper Box Co Montville	Brick-Building	F B Skiff Inc Hartfor
New Haven Board and Carton Co The New Haven Board and Carton Co The	Bricks-Fire	Electro Motive Mfg Co Inc The (mica & trimmer)  Capacitors  Willimanti
Clairglow Mfg Company (metal) Portland Connecticut Container Corporation New Haves Gair Company Inc Robert (corrugated and	Howard Company Mullite Refractories Co The Shelton	Precision Tool & Die Co Waterbur
Gair Company Inc Robert (corrugated an solid fibre shipping containers) Portland Merriam Mfg Co (steel cash, bond, security fitted tool and tackle boxes) Durhan	Hooks, Cup Hooks, Hooks and Eyes, C H	Standard Card Clothing Co The (for textil mills)  Card Clothing Co The (for textil Stafford Spring
Middletown Mig Co (metal) Middletown Warner Bros Co The (Acetate, Paper, Acetate and Paper Combinations, Counter Display Setup) Bridgepor	Broaching Hartford Special Machinery Co The Hartford	Carpenter's Tools Sargent & Company (Planes, Squares, Plum Bobs, Bench Screws, Clamps and Sar Vices) New Have
Boxes and Crates City Lumber Co of Bridgeport Inc The	Charles Parker Co  Knapp Foundry Company Inc (rough or ma-	B F Goodrich Sponge Products Division Shelton
Wallingford Planing Mill Co Inc Bridgepor Yalesville		B F Goodrich Sponge Products Division Shelton
Merriam Mig Co (Bond and Security, Cash and Utility, Personal Files and Drawer Safes)	Brushes Moran Brush Mfg Co Inc Hamden	Carpets and Rugs Bigelow-Sanford Carpet Co Thompsonvill
Boxes-Paper-Folding	Buckles B Schwanda & Sons Staffordville	Casters  Bassick Company The (Industrial and General
Atlantic Carton Corp Bridgeport Paper Box Co Curtis & Sons Inc S  Norwick Bridgeport Sandy Hool	G E Prentice Mfg Co The Kensington	Bridgepor Casters—Industrial
Folding Cartons Incorporated (paper, folding) Versailler	Patent Button Co The Waterbury Risdon Manufacturing Co John M Russell	George P Clark Co Windsor Lock Castings
Gair Company Inc Robert Montville H J Mills Inc  Boxes—Paper—Folding		Connecticut Foundry Co (grey iron) Rocky Hi
National Folding Box Co Inc New Haven and Versailles		Connecticut Malleable Castings Co (malleable iron castings)  Consolidated Industries Inc West Cheshir
New Haven Board and Carton Co The New Haver Robertson Paper Box Co Montville	Lea Míg Co Waterbury	Charles Parker Company The (brass, bronzaluminum)  Meride Eastern Malleable Iron Company The (malle
Warner Bros Co The Bridgeport  Boxes-Paper-Setup	lighting) Thomaston	Farrel-Birmingham Company Inc (Mechanite
Box Shop Inc The Bridgeport Paper Box Co Heminway Corporation The  New Haver Bridgeport Waterbury	Burners-Automatic Peabody Engineering Corporation Stamford	Nodular, Iron, Steel)  Hartford Electric Steel Corp The (stainles steel)  Hartford
Heminway Corporation The H J Mills Inc Strouse Adler Company The Warner Bros Co The Waterbury Bristo New Haver Bridgeport	Burners—Coal and Oil Peabody Engineering Corporation (Combined)	Plainville Casting Company (gray, alloy an high tensile irons) Plainvill Malleable Iron Fittings Co (malleable iron an
Brake Cables Eis Manufacturing Co Brake Linings Middletown	Durners	McLagon Foundry Co (grey iron) New Have Meyer Iron and Brass Foundry Inc (gre
Raybestos Division of Raybestos-Manhattan Inc (Automotive and Industrial) Bridgeport		iron) Shelto Newton-New Haven Co (zinc and aluminum 688 Third Ave West Have
Russell Mig Co The Middletown  Brake Service Parts  Eis Manufacturing Co Middletown	Peabody Engineering Corporation (Combined)	Philbrick-Booth & Spencer Inc (grey iron) Hartfor Producto Machine Company The Bridgepor
Braid—Elastic & Non-elastic Essex Mills Inc	Burners—Refinery Peabody Engineering Corporation (For Gas and	Scovill Manufacturing Company (Brass
Brass & Bronze American Brass Co The (sheet, wire, rods,	Oil) Stamford	Stamford Casting Company Inc (Aluminum Magnesium and Bronze) Stamfor Turner & Seymour Mfg Co The (gray iron
Bridgeport Brass Company (sheet, rod, wire and tubing)  Waterbury Bridgeport Bridgeport		Union Mfg Co (grey iron & semi steel)  New Britai
Bristol Brass Corp The (sheet, wire, rods)  Bristol Chase Brass & Copper Co Waterbury	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	Waterbury Foundry Company The (highway sash weights) Waterbur Wilcox-Crittenden Div North & Judd Mfg Co
Miller Company The (phosphor bronze and brass	Busways  Distribution Assemblies Department, General Electric Co Plainville	(gray iron and brass) Middletow
Plume & Atwood Mfg Co The (sheet, wire, rod) Scovill Manufacturing Company Waterbury 91	B Schwanda & Sons Staffordville	Arwood Precision Casting Corp Grote
Seymour Mfg Co The (strip, sheet & wire) Seymour Tinsheet Metals Co The (sheets and rolls)	Frank Parizek Manufacturing Co The Putnam Patent Button Co The Waterbury Scovill Manufacturing Company (Uniform and	Mullite Refractory Co The Shelto
Western Brass Mills Division of Olin Industries Inc (sheet, strip)  Waterbury Waterbury New Haven	Tack Fasteners) Waterbury 91 Waterbury Companies Inc (Uniform and Fancy	Chain Risdon Manufacturing Co John M Russe
Brass & Bronze Ingot Metal Plume & Atwood Mfg Co The Thomaston Whipple and Choate Company The Bridgepore	Cabinets Charles Parker Co The (medicine) Maridan	Div Turner and Seymour Mfg Co The (weldles sash, jack, safety, furnace, universal, lio and cable) Torringto
Brass, Bronze, Aluminum Castings Charles Parker Company The Meriden Stamford Casting Company Inc Stamford	Cabinet Work Hartford Builders Finish Co Hartford	Chain—Power Transmission and Conveying Whitney Chain Company Hartfor
Victors Brass Foundry Inc Guilford Brass Goods	Cable—Asbestos Insulated Rockbestos Products Corp New Haven	Chain—Welded and Weldless Round Chain Div. Republic Steel Corp.
American Brass Company The Waterbury Plume & Atwood Mfg Co The (to order) Waterbury	Cable—BX Armored General Electric Company Bridgeport	Bridgepor
Rostand Mfg Co The (Ecclesiastical Brass Wares) Milford Scovill Manufacturing Company (to order)	Cable—Nonmetallic Sheathed General Electric Company Bridgeport	Chain—Bead Auto-Swage Products Inc Bead Chain Mfg Co The  Shelto Bridgepor
Waterbury 91 Western Brass Mills Division of Olin Indus tries Inc  Waterbury 91 Of Olin Indus New Haven		Chairs The Hitchcock Chair Company Riverto
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Carwin Company The North Haven	Condenser and Heat Exchanger Tubes Bridgeport Brass Company Bridgeport	Couplings—Self-Sealing Sperry Products Inc Danbury
American Cyanamid Company Waterbury	McNeal J D (Electrical and Electronic)	Cranes and Conveyors I-B Engineering Sales Co New Haven
Apothecaries Hall Co Carwin Company The Du-Lite Chemical Corp The  Waterbury North Haven Middletown	Stanley P Rockwell Co Inc The (Consulting) 296 Homestead Ave Hartford	Farrel-Birmingham Company Inc (Stone and Ore)
Macalaster Bicknell Company MacDermid Incorporated Naugatuck Chemical Division Waterbury United States	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	Cups—Paper American Paper Goods Company The ("Puritan")  Kensington
Rubber Co New England Lime Company Pfizer & Co Inc Chas  Naugatuck Canaan Groton	Contract Machining Laurel Mig Co Inc (Precision Production Small Parts) Plainville	Cushioning for Packaging B F Goodrich Sponge Products Division Shelton Gilman Brothers Co The Gilman
Naugatuck Chemical Division United States Rubber Co (insecticides, fungicides, weed	Malleable Iron Fittings Company Charles Parker Co Contract Manufacturers  Branford Meriden	Dextone Co The Cut Stone  Cut Stone  New Haven
killers) Naugatuck Christmas Light Clips	Fenn Mig Co The (Precision Machine Work) Newington	Barnes Tool Company The (pipe cutters, hand) New Haven
Foursome Manufacturing Co Bristol Chromium Plating	Greist Mfg Co The (metal parts and assemblies) 503 Blake St New Haven	Mitrametric Co The (ground pinion) Torrington
Chromium Corp of America Chromium Process Company The City Plating Works Inc  Waterbury Shelton Bridgeport	Merriam Mfg Co (production runs—metal boxes and containers to specifications) Durham Charles Parker Co (sheet metal fabricators) Meriden	Pratt & Whitney Div Niles-Bement-Pond Co (Milling Cutters all types) West Hartford Cutting & Creasing Rule
Cushman Chuck Co The Hartford Horton Chuck Div The E Horton & Son Com-	Plume & Atwood Mfg Co The (metal parts & assemblies)	Bartholomew Co H I Bristol  Cyl. Gauges & Tools
pany Windsor Locks	Scovill Manufacturing Company (metal parts and assemblies) Waterbury 91	J & S Machine Co Inc Hartford Decorative Plating and Polishing
Jacobs Manufacturing Co The Union Manufacturing Company New Britain	J H Sessions & Son Bristol Controllers	City Plating Works Inc Bridgeport Deep Hole Drilling & Reaming
Jacobs Manufacturing Co The West Hartford	Bristol Company The Waterbury Manning Maxwell & Moore Inc Stratford	Hamden Deep Hole Drilling Co Hamden Wilson Arms Co The Hamden
Cushman Chuck Co The Hartford	Controls—Remote Panish Controls (Remote Controls for Marine	Deep Drawings Stanley Pressed Metal New Britain
Union Mfg Co Horton Chuck Div The E Horton & Son Com-	& Aeronautic Applications) Bridgeport Conveyor Systems	Delayed Action Mechanism M H Rhodes Inc Hartford
pany Windsor Locks Chucks—Power Operated	Leeds Conveyor Mig Co The Fast Haven Production Equipment Co Meriden	Demineralizers Crystal Research Laboratories Hartford
Cushman Chuck Co The Hartford Union Manufacturing Company New Britain	Copper American Brass Corp The (sheet, wire, rods,	Diamonds—Industrial Diamond Tool and Die Works Hartford
Trumbull Components Department, General Electric Co	tubes)  Bridgeport Brass Company (sheet, rod, wire and tubing)  Bridgeport	Dictating Machines Dictaphone Corporation Bridgeport Gray Manufacturing Company The
Howard Company (Fire Howard "B" and High Temperature Dry) New Haven	Bristol Brass Corp The (steel) Bristol Chase Brass & Copper Co (sheet, rod, wire	Soundscriber Corporation The New Haven Die Cast Dies
Cleaning Compounds Enthone Inc (Industrial) New Haven	tube) Thinsheet Metals Co The (sheets and rolls) Waterbury Waterbury	C & F Tool & Die Corp Bridgeport Die Castings
Cleansing Compounds MacDermid Incorporated Waterbury	Western Brass Mills Division of Olin Indus- tries Inc (sheet, strip)	Mt Vernon Die Casting Co Stamford Newton-New Haven Co Inc New Haven
Clock Mechanisms Lux Clock Mfg Co The Waterbury	Copper Castings Knapp Foundry Company Inc Guilford	ABA Tool & Die Co Manchester
E Ingraham Co The Seth Thomas Clocks Thomaston	American Brass Company The New Haven Copper Co The  Waterbury Seymour	Parker Stamp Works Co The Weimann Bros Mfg Co The Eastern Machine Screw Corp The Truman & Barclay Sts New Haven
United States Time Corporation The Waterbury	New Haven Copper Co The Seymour	Die Heads-Self Opening Eastern Machine Screw Corp The New Haven
Lux Clock Mfg Co The Waterbury Clocks—Automatic Cooking	Bridgeport Brass Company (cooking utensils) Bridgeport	Geometric Tool Division, Greenfield Tap & Die Corp. New Haven Die Polishing Machinery
Lux Clock Mfg Co The Waterbury	American Brass Company The Bridgeport Brass Co Bridgeport	Hartford Special Machinery Co The Hartford Die Sets
Snow-Nabstedt Gear Corp The New Haven Clutch Facings	Cords—Asbestos General Electric Company Bridgeport Bridgeport	Pratt & Whitney Div Niles-Bement-Pond Co (Precision) West Hartford
Raybestos Division of Raybestos-Manhattan Inc (Molded, Woven, Semi-metallic and	Cords—Braided Essex Mills Inc Essex	Producto Machine Company The Bridgeport Union Mfg Co (precision, steel and semi-steel)
Full-metallic) Russell Mfg Co The Middletown	General Electric Company Bridgeport	Dies New Britain
Boesch Mfg Co Inc Danbury	General Electric Company Bridgeport	Hoggson & Pettis Mfg Co The 141 Brewery St New Haven Mitrametric Co The (ground for gears)
Dano Electric Company Winsted	General Electric Company Bridgeport Cord Sets	Parker Stamp Works Inc The (plastics and
Bittermann Electric Company Canaan	Seeger-Williams Inc Bridgeport Cord Sets-Electric	die castings) Hartford Pratt & Whitney Div Niles-Bement-Pond Co
National Pipe Bending Co The	General Electric Company Bridgeport Cork Cots	Precision Engineering Co Inc
Whitlock Manufacturing Co The Hartford	Sonoco Products Co (Climax-Lowell Div) Mystic	(torging, trimming & blanking) Southington Die Sinkers
Cold Molded Electrical Insulation Meriden Molded Plastics Meriden	Connecticut Container Corporation New Haven Corrugated Containers Inc Hartford	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford
A F Holden Company The	Corrugated Shipping Cases	Douglas Co Geo M New Haven
52 Richard St West Haven  Commercial Truck Bodies  Metropolitan Body Company Bridgeport	Connecticut Container Corporation New Haven Connecticut Corrugated Box Div Robert Gair Co Inc Portland D L & D Container Corp 87 Shelton Ave	Douglas Co Geo M New Haven Dles and Dle Sinking Consolidated Industries Dish Drying Machines
Comparators	Cosmetic Containers New Haven	Colt's Manufacturing Company Hartford Dish Washing Machines
Pratt & Whitney Div Niles-Bement-Pond Co (Electro-limit and Air-O-Limit) West Hartford	Evelet Specialty Co The Waterbury Plume & Atwood Mfg Co The (metal)	Colt's Manufacturing Company Hartford Display Containers
Compressors Norwalk Company Inc (high pressure air and	J B Williams Co The Thomaston	National Folding Box Co Inc (folding paper- board) New Haven and Versailles
Concrete Products	Cotton and Asbestos Wicking Bland Burner Co The Hartford	Displays—Metal Durham Mfg Co The (Designing & Mfg to
Plastricrete Corp Hamden	Cotton Yarn Floyd Cranska Co The Moosup	customers' specifications)  Merriam Mfg Co (Contract Work to Individual Specifications)  Durham
Sonoco Products Co (Climax-Lowell Div) (Paper) Mystic	Counting Devices Veeder-Root Inc Hartford	Parsons Co Inc W A (custom designed) Durham
	- 4	(Advt.)

#### CONNECTIC IT'S MAD IN T

Distribution Centers Distribution Assemblies Department, General Electric Co Plainville	Sessions Clock Co The Forestville
Sargent & Company Yale & Towne Mig Co The  New Haven Stamford	Sessions Clock Co The (small) Forestville
Bilco Co The (metal, residential and com-	General Electric Company Bridgeport Rockbestos Products Corp (asbestos insulated)
Dowel Pins Allen Manufacturing Co The Hartford	New Haven
Holo-Krome Screw Corp The West Hartford  Drafting Accessories	Arrow-Hart & Hegeman Electric Co The Hartford General Electric Company Bridgeport
Joseph Merritt & Co Hartford  Drill Presses	Electrical Conduit Fittings & Grounding Specialties
Townsend Mfg Co The H P Elmwood  Drilling Machines  Drilling Machines	Gillette-Vibber Company The New London  Electrical Control Apparatus
Pratt & Whitney Div Niles-Bement-Pond Co (Deep Hole) West Hartford  Drilling and Tapping Machinery	Plainville Electrical Products Co The Plainville
Drilling and Tapping Machinery Hartford Special Machinery Co The Hartford Drop Forgings	A C Gilbert Co New Haven
Atwater Mfg Co  Billings & Spencer Co The Blakeslee Forging Company The  Plantsville Hartford Plantsville	U S Electrical Motors Inc Milford
Consolidated Industries West Cheshire Wilcox-Crittenden Div North & Judd Mig Co Middletown	Electrical Outlet and Switch Boxes, and Covers
Druggists' Rubber Sundries Seamless Rubber Company The New Haven	General Electric Company Bridgeport  Electrical Recorders
Duplicating Machines—Automatic Pratt & Whitney Div Niles-Bement-Pond Co	Bristol Co The Waterbury
West Hartford Duplicator Tables	Allied Control Co Plantsville
Regent Machine Co Etastic Narrow Fabric  Special Regent Machine Co Etastic Narrow Fabric  Essex	Plainville Electrical Products Co The Plainville
Electric Cables General Electric Company Bridgeport	McNeal J D New Haven
Rockbestos Products Corp (asbestos insulated) New Haven	Wiremold Co The Hartford
Sessions Clock Co The (alarm, kitchen, occasional and office)  Forestwille	Terrville Manufacturing Co (Stampings to customer specifications Terryville
Electric—Commutators & Segments Cameron Elec Mfg Co The (rewinding motors) Ansonia	Gray Manufacturing Company The Hartford McNeal J D New Haven Middletown Mfg Co (metal cabinets, chassis
Bristol Spring Manufacturing Co Plainville  Electric Cords	panels, brackets, cases) Middletown Ripley Co Middletown Sturrup Larrabee & Warmers Inc Middletown
General Electric Company Rockbestos Products Corp (asbestos insulated) New Haven	Electroplating National Sherardizing & Machine Co Hartford
Ripley Company Inc Middletown	Waterbury Plating Company Waterbury  Electroplating—Equipment & Supplies
Rockbestos Products Corp (asbestosinsulated) New Haven	Enthone Inc Lea Manufacturing Co The MacDermid Incorporated  New Hawen Waterbury Waterbury
Winsted Hardware Mfg Co (trade mark "Durabilt")	Electroplating Processes & Supplies Enthone Inc United Chromium Incorporated  Waterbury
Hartford Element Co Hartford	Barnum-Hayward Electrotype Co Inc New Haven
Case Brothers Inc Stevens Paper Mills Inc The  Manchester Windsor	Lockwood Sons Inc Wm H New Haven Electrotype Div Electrographic Corp New Haven
Electric Lighting Fixtures Fan-Craft Mfg Co (residential, church, post	Elevators Eastern Machinery Co The (passenger and freight) New Haven
lanterns) Plume & Atwood Mfg Co The Wasley Products Inc  Plainville Thomaston Plainville	General Elevator Service Co Hartford
Electric Motor Controls  Arrow-Hart & Hegeman Electric Co The Hartford	Conn Metal Finishing Co Waterbury Plating Company Waterbury
Electrical Outlet and Switch Boxes, and Covers	Clairglow Mfg Co Portland
General Electric Company Bridgeport  Electric Signs	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford
Berger Sign Co United Advertising Corp Hartford New Haven	Pratt & Whitney Aircraft Div United Aircraft
Arrow-Hart & Hegeman Electric Co The	Corp (aircraft)  Wolverine Motor Works Inc (diesel stationary marine)  East Hartford (diesel stationary Bridgeport
General Electric Company Hartford Bridgeport	Curtis 1000 Inc Envelopes Hartford
R W Cramer Company Inc The Centerbrook	United States Envelope Company Hartford Division Hartford

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Electric Timers Clock Co The Forestville	Envelopes—Stock and Special American Paper Goods Company The
Electric Timing Motors Clock Co The (small) Forestville	Kensington  Extractors—Tap
Electric Wire	Walton Company The West Hartford
Electric Company Bridgeport Services Products Corp (asbestos insulated) New Haven	American Brass Company The Platt Bros & Co The P O Box 1030 Waterbury Plume & Atwood Mfg Co The Scovill Manufacturing Company Waterbury 91
Electric Wiring Devices Hart & Hegeman Electric Co The Hartford	Stevens Co Inc Waterbury  Eylets, Ferrules and Wiring Terminals
Electric Company Bridgeport	American Brass Company The Waterbury
Specialties -Vibber Company The New London	Eyelet Machine Products  American Brass Company The Waterbury Ball & Socket Mfg Co The West Cheshire
Electrical Control Apparatus lle Electrical Products Co The Plainville	Cold Forming Mfg Co The Waterbury Plume & Atwood Mfg Co The Thomaston
Electrical Goods	Stevens Co Inc Waterbury
lbert Co New Haven  Electrical Motors	Fancy Dress Buttons and Buckles Waterbury Companies Inc Waterbury
lectrical Motors Inc Milford	Fans-Electric
ctrical Outlet and Switch Boxes, and Covers	General Electric Company Bridgeport  Fasteners—Silde & Snap
Electric Company Bridgeport  Electrical Recorders	G E Prentice Mfg Co The Kensington Scovill Manufacturing Company (snap and slide fasteners) Waterbury 91
Co The Waterbury  Electrical Relays and Controls	Felt
Control Co Plantsville	Auburn Manufacturing Company The (mechanical, cut parts) Middletown Drycor Felt Company (paper makers and in-
Electrical Switchboards ille Electrical Products Co The Plainville	dustrial) Staffordville
Electrical Test Equipment  New Haven	American Felt Co (Mill & Cutting Plant) Glenville
Electrical Wiring Systems old Co The Hartford	Chas W House & Sons Inc (Mills & Cutting Plant) Unionville
Electronic Parts lle Manufacturing Co (Stampings to	Fenders—Boat B F Goodrich Sponge Products Division Shelton
emer specifications Terryville  Electronics	Davis Co The E J New Haven
Manufacturing Company The Hartford I J D New Haven town Mig Co (metal cabinets, chassis Is, brackets, cases) Middletown	Case Brothers Inc Manchester C H Norton Co The North Westchester Stevens Paper Mills Inc The Windsor
Co Middletown Larrabee & Warmers Inc Middletown	Finger Nail Clippers H C Cook Co The 32 Beaver St Ansonia
Electroplating al Sherardizing & Machine Co Hartford	File Cards Standard Card Clothing Co The Stafford Springs
oury Plating Company Waterbury ectroplating—Equipment & Supplies	Films Cine-Video Productions Inc Milford
le Inc New Haven Ianufacturing Co The Waterbury Ermid Incorporated Waterbury	Firearms Colt's Manufacturing Company Hartford
Electropiating Processes & Supplies lee Inc New Haven Chromium Incorporated Waterbury	Marlin Firearms Co The O F Mosberg & Sons Inc Remington Arms Company Inc Winchester Repeating Arms Company Division
Electrotypes n-Hayward Electrotype Co Inc	Olin Industries Inc New Haven Fire Hose
ood Sons Inc Wm H Haven Electrotype Div Electrographic	Fabrics Fire Hose (municipal and industrial) Sandy Hook
Elevators n Machinery Co The (passenger and	American Windshield & Specialty Co The 881 Boston Post Road Milford John P Smith Co The (screens) 423-33 Chapel
(ht) New Haven Il Elevator Service Co Hartford	St New Haven Fireproof Floor Joists
Enameling Metal Finishing Co Hamden bury Plating Company Waterbury	Dextone Co The New Haven
Enameling and Finishing	M Backes' Sons Inc Wallingford
ow Mfg Co Portland  End Milling Cutters & Whitney Div Niles-Bement-Pond Co	Fishing Tackle H C Cook Co The 32 Beaver St  Ansonia
West Hartford  Engines  Whitney Aircraft Div United Aircraft	Fiashlights  Bond Electric Corporation Division of Olin Industries Inc Bridgeport Metal Goods Mfg Co Bridgeport
o (aircraft)  Fast Hartford  rine Motor Works Inc (diesel stationary ine)  Bridgeport	Winchester Repeating Arms Company Division Ofin Industries Inc New Haven Flat Springs
	m 1 . 1 m 1 m 2 f 1 m m m 1 - 111

Bristol Spring Manufacturing Co

Bristol Spring Manufacturing
Flexible Shaft Machines
Pratt & Whitney Div Niles-Bement-Pond Ce
West Hartford
(Advt.)

Floor & Ceiling Plates
Beaton & Cadwell Mfg Co The New Britain Fluorescent Lighting Equipment
Fullerton Manufacturing Corp Norwalk
Vanderman Manufacturing Co The
Williamtic
Wiremold Company The
Hartford Foam Rubber
B F Goodrich Sponge Products Division Shelton

B F Goodrich Sponge Frounds

Billings & Spencer Company
Capewell Manufacturing Company
Cawthra Bros Forge Co
Clark Brothers Bolt Co
Consolidated Industries Inc
Heppenstall Co (all kinds and shapes)
Bridgeport
Non-ferrous)

Bridgeport
Non-ferrous Scovill Manufacturing Company (Non-ferrous)
Waterbury 91

Connecticut Malleable Castings Co (malleable iron castings)
Foundries

Connecticut Malleable Castings Co (malleable iron castings)
Farrel-Birmingham Company Inc (Iron and Ansonia Fritzell Foundry & Casting Co The

Mystic Foundry Charles Parker Company The (iron, brass, bronze, aluminum)
Plainville Casting Company (gray, alloy and Plainville desire irons)

The Bridgeport Drohae,
Plainville Casting Company (gray,
high tensile irons)
Producto Machine Company The
Stamford Casting Company Inc
Magnesium and Bronze)
Magnesium and Bronze)
Stamford Turner & Seymour Mig Co The (gray iron,
semi steel and alloy)
Union Mig Co (gray iron & semi steel)
Wilcox-Crittenden Div North & Judd Mig Co
(iron, brass, aluminum and bronze)
Middletown

Fountain Pens and Mechanical Pencils
Waterman Pen Company Inc Seymour

Foundry Riddles
John P Smith Co The 423-33 Chapel St
New Haven

Fuel Oil Pump and Heater Sets
y Engineering Corporation Stamford Peabody

Furnaces

The (warm air oil fired)

Furnaces

The (warm air South Norwalk

Furnace Linings
Mullite Refractories Co The (refractories, super refractories)
Shelton Fuses-Plug and Cartridge
General Electric Company Bridgeport

General Electric Company

Gage Blocks

Pratt & Whitney Div Niles-Bement-Pond Co
(Alloy steel and Carbide, Hoke and USA)

West Hartford

Gages
Farmington Engineering Co The Bloomfield

Farmington Engineering

Qalvanizing

Malleable Iron Fittings Co

Wilcox-Crittenden Div North & Judd Mfg Co

Middletown

Auburn Manufacturing Company The (from all materials) Middletown Raybestos Division of Raybestos-Manhattan Bridgeport Tsingris Die Cutting Corp (from all materials)

Bridgeport

Grow all materials

Gas Range Conversion Burner
Holyoke Heater Corp of Conn Inc Hartford Gas Scrubbers, Coolers and Absorbers body Engineering Corporation Stam

Bristol Co The (pressure and vacuum—recording automatic control)
Helicoid Gage Division American Chain & Cable Co The (pressure and vacuum)
Reidecoort vacuum) Bridgeport

Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Div Niles-Bement-Pond Co
(Precision Measurement all types)
West Hartford

Mitrametric Co The (blanked fine pitch)
Torrington

Gears and Gear Cutting
Farrel-Birmingham Company Inc
Fenn Mfg Co The
Hartford Special Machinery Co The
Hartford

Glass Blowing Macalaster Bicknell Company New Haven Fletcher Terry Co The Forestville Tavano Mfg Co Torrington

Tavano Mig Co Golf Equipment Horton Mig Co The (clubs, shafts, balls, bags) Bristol

A D Steinbach & Sons Inc New Haven

Farrel-Birmingham Company Inc (Roll and Cylindrical)
Hartford Special Machinery Co The (gears, threads cams and splines)
Hartford Horberg Grinding Industries Inc (Precision custom grinding; centerless, cylindrical, surfaces, internal and special)
19 Staples St Bridgeport

Grinding Heads—Internal
Pratt & Whitney Div Niles-Bement-Pond Co
(Pneumatic, High Speed) West Hartford

Grinding Machines
Farrel-Birmingham Company Inc (Roll)

Pratt & Whitney Div Niles-Bement-Fond Co (Surface, Die, Gear and Cutter Grinders) West Hartford Rowbottom Machine Company Inc (cam)
Waterbury

Grommets American Brass Company The Plume & Atwood Mfg Co The Waterbury Thomaston

Guards for Machinery
Wheeler Co The G E
New Haven Hack and Band Saw Blades
Capewell Manufacturing Co The Hartford Hammers—Carpenters and Machinists
Capewell Manufacturing Company Hartford

Billings & Spencer Company (wrenches, sockets and shop tools)

Bridgeport Hdwe Mfg Corp The (nail pullers, scout axes, box opening tools, trowels, coping saws, putty knives)

Bridgeport

City Plating Works Inc Bridgeport

Hardness Testers
Wilson Mechanical Instrument Div American
Chain & Cable Company Inc Bridgeport Bridgeport

Hardware

Bassick Company The (Automotive)
Harloc Products Corp
Sargent & Company
Wilcox-Crittenden Div North & Judd Mfg Co
(marine heavy, and industrial)
Middletown
Vale & Towne Mfg Co The
Stamford

Hardware-Marine & Bus Rostand Mfg Co The Milford

Excelsior Hardware Co The Stamford

Excelsior Hardware

Hardware, Trunk & Luggage

Corbin Cabinet Lock Div American Hardware

New Britain

Bristol Corp I H Sessions & Son Yale & Towne Mfg Co The Stamford

Doran Bros Inc Danbury Health Surgical & Orthopedic Supports
Berger Brothers Company The (custom made
for back, breast, and abdomen) New Haven

Heat Exchangers Whitlock Manufacturing Co Hartford

Safeway Heat Elements Inc (woven wire resistance type) Middletown

Heat Treating
A F Holden Co The 52 Richard St
Bennett Metal Treating Co The
1045 New Britain Ave
Commercial Metal Treating Co
New Britain-Gridley Machine Division
The New Britain Machine Co
New Haven Heat Treating Co
Stanley P Rockwell Co Inc
296 Homestead Ave

West Haven
Elmwood
Bridgeport
New Britain
New Britain
New Haven
Hartford

Heat-Treating Equipment

Autoyre Company The
Barnes Co The Wallace Div Associated Spring
Corp
A F Holden Company The 52 Richard Street
West Haven(Main Plant)
Bauer & Company Inc
Rolock Inc (Retorts, Muffles, etc.) Fairfield
Stanley P Rockwell Co Inc The (commercial)
296 Homestead Ave

Heat Treating Fixtures
Rolock Inc (Trays, Baskets, etc.)
Wiretex Mfg Co Inc
Fairfield
Bridgeport

Heat Treating Salts and Compounds A F Holden Company The
52 Richard Street West Haven
Mitchell-Bradford Chemical Co
Bridgeport

Heating and Cooling Colls
G & O Manufacturing Co New Haven

Hartford Element Co
Heavy Chemical
Naugatuck Chemical Division United States
Rubber Co (sulphuric, nitric and muriatic
acids and aniline oil) Naugatuck

Hex-Socket Screws
Bristol Company The Waterbury
Holo-Krome Screw Corp The West Hartford

Highway Guard Rail Hardware
Malleable Iron Fittings Co Branford

Homer D Bronson Compan Beacon Falls

Hobs and Hobbings

ABA Tool & Die Co
Pratt & Whitney Div Niles-Bement-Pond Co
(Die and Thread Milling) West Hartford

J-B Engineering Sales New Haven

Union Mfg Company New Britain

Don Mfg Co J M Hose-Flexible Metallic

American Brass Co American Metal Hose Branch Waterbury

Hawie Mfg Co The (So-Lo Grip Tahs) Bridgeport

Hospital Signal Systems
Conn Telephone & Electric Corp Subsidiary of
Great American Industries Inc Meriden

Hydraulic Brake Fluids
Middletown Eis Manufacturing Co

Hydraulic Controls Sperry Products Inc Danbury

Hypodermic Needles Roehr Products Company Waterbury

Ice Buckets
B F Goodrich Sponge Products Division Shelton

Inductors C G S Laboratories Inc Stamford

Industrial Chrome Plating
Mirror Polishing & Buffing Co Waterbury

Industrial Displays
Sansone Co S Frederick (Designers
Builders and Counselors) Short Beach

Industrial Finishes
Chemical Coatings Corporation
United Chromium Incorporated

Industrial Tools—Powder Actuated Remington Arms Company Inc Bridge Bridgeport

Waterman Pen Company Inc

Insecticides American Cyanamid Company Waterbury

Insulated Wire & Cable General Electric Company Kerite Company The Seymour

Insulated Wire & Cable Machinery
Davis Electric Company Wallingford

Bristol Company The Waterbury
J-P-T Instruments Inc (Electrical and Temperature) New Haven
Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Div Nilea-Bement-Pond Co
(Precision Measuring) West Hartford

Gilman Brothers Co The Gilman

Inter-Communications Equipment Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden	Andrew B Hendryx Co The New Haven The Smith-Worthington Saddlery Co Hartford	Machinery Fenn Manufacturing Company The (special) Newington Globe Tapping Machine Company (dial type
Interval Timers Lux Clock Manufacturing Company Waterbury Rhodes Inc M H Hartford	G E Prentice Mfg Co The Kensington	drilling and tapping)  Hallden Machine Company The (mill)  Thomaston
Case Brothers Inc.  Manchester	Auburn Manufacturing Company The (packings, cubs, washers, etc) Middletown	Torrington Manufacturing Co The (mill) Torrington Machinery-Bolt and Nut
J H Sessions & Son Bristol	Lehman Brothers Inc (designers, engravers, lithographers) New Haven	Waterbury Farrel Foundry & Machine Co The Waterbury Machinery-Cold Heading
Jig Borer  Moore Special Tool Co (Moore) Bridgeport  Pratt & Whitney Div Niles-Bement-Pond Co  West Hartford	Lighting Accessories—Fluorescent General Electric Company Bridgeport	Waterbury Farrel Foundry & Machine Co The Waterbury
Jigs, Fixtures & Gages Federal Machine & Tool Co Bristol	Lighting Equipment Fullerton Manufacturing Corp Norwalk Miller Co The (Miller, Duplexalite, Ivanhoe)	Machinery Dealers & Rebuilders Botwinik Brothers I L Lucas and Sen State Machinery Co Inc State Machinery Co Inc
Jig Grinder Moore Special Tool Co (Moore) Bridgeport	Lines—Braided  Essex Mills Inc  Essex	Machinery-Extruding Standard Machinery Co The Mystic
Fratt & Whitney Div Niles-Bement-Pond Co West Hartford	New England Lime Company Canaan	Machinery—Metal-Working Fenn Mig Co The Waterbury Farral Research & Machine Co The
Key Blanks Sargent & Company Vale & Towne Mfg Co The Stamford	Lipstick Containers Bridgeport Metal Goods Mfg Co Plume & Atwood Manufacturing Co Woodship	Waterbury Farrel Foundry & Machine Co The Waterbury Pratt & Whitney Div Niles-Bement-Pond Co West Hartford
J & J Cash Inc (Woven) Naugatuck Chemical Division United States	O'Toole & Sons Inc T Stamford	Machinery-Nut Waterbury Farrel Foundry & Machine Co The (forming and tapping) Waterbury
Rubber Co (for rubber articles) Naugatuck	Lithographing Kellogg & Bulkeley A Division of Connecticut Printers Inc Lehman Brothers Inc New Haven	Machinery-Screw and Rivet Waterbury Farrel Foundry & Machine Co The Waterbury
Better Packages Inc Shelton  Laboratory Equipment Eastern Industries Inc New Haven	A D Steinbach & Sons New Haven  Locks—Banks  Yale & Towne Mfg Co The Stamford	Machinery—Wire Drawing Fenn Mig Co The Newington Waterbury Farrel Foundry & Machine Co The
Laboratory Supplies Macalaster Bicknell Company New Haven	Locks—Builders Eagle Lock Co The Terryville	Waterbury Machinery—Wire Straightening
American Fabrics Company The Wilcox Lace Corporation The  Bridgeport Middletown	Sargent & Company Yale & Towne Mfg Co The  Locks—Cabinet	Machines Campbell Machine Div American Chain & Cabi
Wilcox Lace Corporation The Middletown	Eagle Lock Co The Excelsior Hardware Co The Yale & Towne Mfg Co The  Terryville Stamford Stamford	Co Ine (cutting & nibbling) Bridgepor Coulter & McKenzie Machine Co The (special new development engineering design and con
Lacquers & Synthetic Enamels Chemical Coatings Corporation L'Sis Chemicals Inc United Chromium Incorporated Rocky Hill Stamford Waterbury	Locks—Special Purpose  Eagle Lock Co The Yale & Towne Mfg Co The  Terryville Stamford	Patent Button Company The Waterbury  Machines—Automatic
A W Flint Co Ladders 196 Chapel St New Haven	Eagle Lock Co The Terryville	A H Nilson Mach Co The (Special) Bridgepor
Bridgeport Brass Company Bridgeport	Locks—Sult-Case and Trimmings Excelsior Hardware Co The Stamford	Machines—Automatic Chucking Bullard Company The New Britain-Gridley Machine Division The New Britain Machine Co (multipl
Lamps Plume & Atwood Mfg Co The (metal oil) Thomaston	Locks—Trunk  Eagle Lock Co The Excelsior Hardware Co The Yale & Towne Mfg Co The Stamford	spindle and double end) Pratt & Whitney Div Niles-Bement-Pond C (Potter & Johnson) West Hartfor
Lampholders—Incandescent and Fluorescent General Electric Company Bridgeport	Locks-Zipper Excelsior Hardware Co The Stamford	Machines—Automatic Screw New Britain-Gridley Machine Division The New Britain Machine Co (single an multiple spindle) New Britai
Verplex Company The Essex	Loom-Non-Metallic Wiremold Company The Hartford	Machines-Automatic Shaft Turning
Lathes—Contin-U-Matic  Bullard Company The (vertical multi-spindle-continuous turning type)  Bridgeport	City Lumber Co of Bridgeport Inc Bridgeport	Bullard Company The (30H lathe—horizonts 3 spindle) Bridgepot Machines—Brushing Fuller Brush Co The Hartfor
Lathes-30H Man-Au-Trol Bullard Company The (horizontal 3 spindle)	Collins Company The Collinsville  Machine Design	Machines—Contin-U-Matic Bullard Company The (verticle multi-spindle-
Bridgeport  Lathes—Mult-Au-Matic  Bullard Company The (vertical multi-spindle-	Black Rock Mig Company The Bridgeport  Machine Tools Bullard Company The Bridgeport	continuous turning) Bridgepor  Machines—Draw Benches Fenn Manufacturing Company The Newingto
indexing type) Bridgeport  Lathes—Toolroom and Automatic	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford Producto Machine Company The Bridgeport	Machines—Drill Spacing Bullard Company The (Bullard spacer—use
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	Machine Work Black Rock Mfg Company The Farrel-Birmingham Company Inc Ansonia	in conjunction with radical drills) Bridgepor
Bullard Company The (single spindle)  Bridgeport	Fenn Manufacturing Company The (precision parts) Hartford Special Machinery Co The (contract	A H Nilson Mach Co The (four-slide wire at ribbon stock) Bridgepo
Lead Plating Christic Plating Co The Groton	work only)  National Sheradizing & Machine Co (job)  Hartford  Hartford	Machines—Mult-Au-Matic Bullard Company The Bridgepo  Machines—Paper Ruling
Norwich Leather Co Norwich Herman Roser & Sons Inc (Genuine Pigskin)	Parker Stamp Works Inc The (Special) Hartford Swan Tool & Machine Co The Hartford Torringson Manufacturing Co The (special roll-	John McAdams & Sons Inc Norwa  Machines—Pipe & Bolt Threading
Glastonbury	ing mill machinery) Torrington	Capewell Mfg Co The Hartfor (Advt.

American Brass Company The Bridgeport Brass Company Plume & Atwood Mfg Co The Seymour Mfg Co The Waterbury Rolling Mills Inc waterbury Rolling Mills Inc Seymont Waterbury Rolling Mills Inc Seymont Waterbury Rolling Mills Inc Seymont Rolling Mills Inc S Machines-Precision Boring
New Britain-Gridley Machine Division
The New Britain Machine Co New Britain Metal Specialties Excelsior Hardware Co The Stamford Waterbury Bridgeport Metal Spinning
Moseley Metal Crafts Inc West Hartford Machines—Rolling
Fenn Manufacturing Company The Newington Thomaston Seymour American Brass Company The
Autoyre Co The (Small)
Better Formed Metals Inc
Bridgeport Chain & Míg Co
DooVal Tool & Míg Inc The
Excelsior Hardware Co The
Greist Míg Co The 503 Blake St New Haven
H C Cook Co The
Mohawk Míg Co (threaded)
J A Otterbein Company The (metal fabrications)

Waterbury
Oakville
Waterbury
Oakville Machine—Slotting
Globe Tapping Machine Company The (High
Production Screw Head Slotting) Bridgeport
Waterbury Farrel Foundry & Machine Co The
(screw head) Waterbury Metal Stampings Waterbury rolls)
Western Brass Mills Division of Olin Industries Inc (sheet, strip)
New Haven Nickel Silver Ingot Whipple and Choate Company The Bridgeport Night Latches Machines—Special Fenn Mfg Co The Fuller Brush Co The Sargent & Company Ne
Yale & Towne Mfg Co Inc
Non-ferrous Metal Castings
Miller Company The
Charles Parker Co Newington New Haven Machinex—Swaging Fenn Manufacturing Company The Newington Fenn Manutacturing Company

Machines—Thread Rolling

Hartford Special Machinery Co The Hartford

Waterbury Farrel Foundry & Machine Co The

Waterbury J A Otterbein Company The (mitions)
J. H. Sessions & Son
Patent Button Co The
G. E Prentice Mfg Co The
Plume & Atwood Mfg Co The
Saling Manufacturing Company
Stanley Pressed Metal
Swan Tool & Machine Co The
Terryville Manufacturing Co
United States Rubber Company
ware Division
Verplex Company The (Contract) Meriden Nuts, Bolts and Washers Clark Brothers Bolt Co Bristol Waterbury Kensington Office Equipment Thomaston Unionville New Britain Hartferd Machines—Turks Head Fenn Manufacturing Company The Newington Pitney-Bowes Inc Stamford Underwood Corporation Bridgeport & Hartford Connecticut

Nellogg & Bulkeley A Division of Connecticut

Printers Inc Machines-Well Drilling
Consolidated Industries West Cheshire Miller Company The (domestic)
Peabody Engineering Corp (Mechanical and/or Steam Atomizer)
Silent Glow Oil Burner Corp The
1477 Park St Terryvine Shoe Hard-Waterbury Essex Machines-Wire Drawing
Fenn Manufacturing Company The Newington ware Division
Verplex Company The (Contract)
Waterbury Lock & Specialty Co
Meters
Standard Meter Repair Co The Magnesium Castings Stamford Casting Company Milford Magnet Wire Viking Wire Co Inc 1477 Park St
Oil Tanks
Norwalk Tank Co The (550 to 30M gals, underwriters above and under ground)
South Norwalk
Hartford Danbury Shelton Manicure Instruments W E Bassett Company The Meters-Gas Derby Sprague Meter Company Bridgeport Rhodes Inc M H Manganese Bronze Ingot Whipple and Choate Company Bridgeport Marine Engines
Kilborn-Sauer Company (running
searchlights)
Lathrop Engine Co The Hartford Rhodes Inc M H

Microfilming

American Microfilming Service Company

New Haven Whitlock Manufacturing Co The Oils-Cutting Anderson Oil Co Inc F E lights and Fairfield Mystic Milk Bottle Carriers
A Co The 423-33 Chapel St
New Haven Open Knife Switches and Accessories
Trumbull Components Department, General
Electric Co Plainville Lathrop Engine Co The

Marine Equipment

Russell Manufacturing Company The (utility
cord and accessory hardware) Middletown

Wilcox-Crittenden Div North & Judd Mig Co
Middletown John P Smith Co The Optical Cores & Ingots
Plume & Atwood Mfg Co The Millwork Hartford Builders Finish Co Thomaston artford Builders Finish Co Milling Machines ratt & Whitney Div Niles-Bement-Pond Co (Keller Tracer—Controlled Milling Machines) West Hartford Otis Woven Awning Stripes
The Falls Company Norwich Marine Reserve Gears Snow-Nabstedt Gear Corp The Outlets-Electric
General Electric Company New Haven Rowbottom Machine Company Inc (cam)
Waterbury Marking Devices
Hoggson & Pettis Mfg Co The
Parker Stamp Works Inc The (steel) Bridgeport New Haven ) Hartford Ovens-Electric Bauer & Company Inc MIII Supplies
Wilcox-Crittenden Div North & Judd Míg Co
Middletown Hartford Material Handling ne W A (tote pans) Oxodizing Laurel Electro Plating Parsons Co Inc Durham Waterbury Package Sealers Mats-Newspaper Lockwood Sons Inc Wm H Miniature Precision Connectors Hartford Better Packages Inc Gorn Electric Co Stamford Packaging Machinery
olt's Manufacturing Company (box
machinery, Trade mark "Rite Size Mattresser Waterbury Mattress Co Waterbury Lux Clock Mfg Co The Parsons Co Inc W A (tool kits)

Metal Boxes and Displays

Durham Mfg Co The (Designing & Mfg to customers' specifications)

Durham Mfg Co (Bond, Security, Cash, Utility, Personal Files, Drawer Safes, Custombilt containers and displays)

Durham Charles Parker Co (sheet metal fabricators)

Meriden

Mfg Co Middletown Metal Boxes
Parsons Co Inc W A (tool kits) Waterbury Hartford Mirror Rosettes and Hangers ary Companies Inc Waterbury Packing Waterbury Auburn Manufacturing Company The (leather, rubber, asbestos, fibre) Middletown Raybestos Division of Raybestos-Manhattan Inc (Asbestos and Rubber Sheet) Bridgeport Mixing Equipment

Eastern Industries Inc
Gabb Special Products Div. The E Horton &
Son Co
Windsor Locks Packaging & Packing Stewart Co The Mercer & Stewart Fuller Brush Co The Mops Pads-Office The Baker Goodyear Company Hartford Middletown Mfg Co Motal Cleaners Apothecaries Hall Co New Haven **Motor Control Centers** Distribution Assemblies Department, General Electric Co Padlocks Waterbury Sargent & Company
Waterbury Lock & Specialty Co The Milford
Yale & Towne Mfg Co Inc

New Haven
Milford
Stamford New Haven Waterbury Enthone Inc MacDermid Incorporated Motors-Electric Timing
Cramer Co Inc The R W Centerbrook Metal Cleaning Machines
Colt's Manufacturing Company Paints and Enamels Hartford Cramer Co Inc The R W Staminate Corp The Centerbrook Panta Metal Finishes Moore Special Tool Co (crush wheel dresser) New Haven Moulded Plastic Products
Butterfield Inc T F Naugatuck Mitchell-Bradford Chemical Co United Chromium Incorporated Bridgeport Waterbury Bridgeport Butterfield Inc T F
Colt's Manufacturing Company
Patent Button Co The
Waterbury Companies Inc
Watertown Mfg Co The Panelboards—Lighting and Distribution
Distribution Assemblies Department, General
Electric Co Plainville npany Hartford Waterbury Waterbury 117 Echo Lake Road Watertown Metal Finishing
Hartford Industrial Finishing
National Sheradizing & Machine
Plainville Polishing Co
Waterbury Plating Company Co e Co Hartford Hartford Panelyte Leed Co The H A Plainville Waterbury Paperboard
Federal Paper Board Co Inc
Montville, New Haven & Versaillee
Gair Company Inc Robert
Robertson Paper Box Co
New Haven Board and Carton Co Mouldings
Himmel Brothers Co The (architectural, and store front) Metal Formings
Master Engineering Company
Stanley Pressed Metal West Cheshire New Britain ABA Tool & Die Co Manchester
Hoggson & Pettis Mfg Co The (steel)
114 Brewery St New Haven
Parker Stamp Werks Inc The (compression
injection & transfer for plastics)

Namer Clearing Montville Montville Leed Co The H A Hamden New Haven Conn Metal Finishing Co Paper Box—Partitions
American Rondo Corporation
(specialty partitions) Hamden H C Cook Co The 32 Bea H C Cook Co The 32 Beaver

Metal Products—Stampings
American Brass Company The Waterbury
Plume & Atwood Manufacturing Co
Thomaston
Bristol Hamden Napper Clothing Standard Card Clothing Co The Atlantic Carton Corp (folding)
Gair Co Inc Robert (folding)
National Folding Box Co Inc (folding)
New Haven and Versailles
New Haven Board and Carton Co The The (for textile Stafford Springs Wilcox Lace Corp The Middletown J H Sessions & Son Scovill Manufacturing Company (Made-to-Or-der) Waterbury 91 New Britain Newspaper Mats Lockwood Sons Inc Wm H Hartford New Haven Mills Inc H J Robertson Paper Box Co (folding) Nickel Anodes
Apothecaries Hall Co Bristo Montville Waterbury

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#### T ' S A D E ı N ONNECTIC T

Paper Boxes—Folding and Setup Bridgeport Paper Box Company M Backes' Sons Inc Wallingford	Plastic Molders Plastic Molding Corporation Sandy Hook Plastic Molding	Waterbi
Paper Clips H C Cook Co The (steel) 32 Beaver St Ansonia	Butterfield, Inc T F Naugatuck U S Plastic Molding Corporation Wallingford	Norwall Code
Paper Mill Machinery Farrel-Birmingham Company Inc Ansonia	Plastic Moulders Colt's Manufacturing Company Hartford	Whitloc
Paper Tags and Pin Tickets	Conn Plastics Waterbury Teal Molding Co Inc New Haven	Bussma
Paper Tubes and Cores	Waterbury Companies Inc Waterbury	Case Le
Sonoco Products Co (Climax-Lowell) Div Mystic	Plastic Wire Coating Materials	Finlay Heminy
Parachute Cord Essex Mills Inc Essex	Electronic Rubber Co Stamford  Plastic Molds & Dies	Hildretl Hunter
Parallel Tubes Sonoco Products Co (Climax-Lowell) Div	Crown Tool & Die Co Inc Bridegport Parker Stamp Works Inc The (for plastica)	Lehman Taylor
Mystic	Hartford	Taylor T B Si A D St
Clairglow Mfg Company Portland	Plasticrete Bloc Plasticrete Corp Hamden	The W
Rhodes Inc M H Hartford	General Electric Company  Bridgeport  Blatter	Banthin
Passenger Car Sander Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden	Acme Chromium Plating Co Christie Plating Co City Plating Works  Platers New Haven Groton Bridgeport	Lockwo
Pattern-Makers Farrel-Birmingham Company Inc Ansonia	Patent Button Co The Waterbury Water Plating Company Waterbury	Chambe
Penlights	Chromium Process Company The (Chromium Plating only)	D'-1
Bridgeport Metal Goods Mfg Co Bridgeport  Pet Furnishings	Platers' Equipment Apothecaries Hall Company Waterbury	Ripley
Andrew B Hendrix Co The New Haven Pharmaceutical Specialties	Conn Metalcraft Inc Lea Manufacturing Co The Waterbury	Consoli
Ernst Bischoff Company Inc Ivoryton Phosphor Bronze	MacDermid Incorporated Waterbury Platers Metal	Pratt
American Brass Company The Bridgeport Brass Company Bridgeport	Plume & Atwood Mfg Co The Thomaston	Hamilto
Miller Company The (sheets, strips, rolls)	Christie Plating Co The (including lead plat-	(prop
Seymour Mfg Co The Seymour Waterbury Rolling Mills Inc (sheets, strips,	ing) Conn Metal Finishing Co Hamden	Hamin
rolls) Waterbury Western Brass Mills Division of Olin Indus-	Superior Plating Co Bridgeport Plating Processes and Supplies	Harriso
tries Inc (sheet, strip) New Haven Phosphor Bronze Ingots	Enthone Inc United Chromium Incorporated New Haven Waterbury	O'Tool
Whipple and Choate Company The Bridgeport Photographic Equipment	Bridgeport Brass Co Bridgeport	Yale &
Kalart Company Inc Plainville Plano Repairs	Keeney Mfg Co The (special bends) Newington Scovill Manufacturing Company Waterbury 48	Eastern
Pratt Read & Co Inc (keys and action)  Ivoryton	Plumbing Specialties Risdon Manufacturing Co John M Russell Div Naugatuck	Colt's
Piano Supplies Pratt Read & Co (keys and actions, backs, plates)  Ivoryton	Div Naugatuck Pneumatic Machinery Bourne Tool & Die Co (built designed & tooled) Watertown	Hoggso 141
CEM Company ("Spirol") Danielson	Pole Line Hardware  Malleable Iron Fittings Co Branford	Fletche
Verplex Company The Essex	Police Equipment The Smith-Worthington Saddlery Co Hartford	Bristol
American Brass Co The (brass and copper)	Mirror Polishing & Buffing Co Waterbury	Bush I
Bridgeport Brass Co (brass and Copper) Bridgeport	General Polishing & Buffing Bridgeport	Vulcan
Chas Brass & Copper Co (red brass and cop- per) Waterbury	Poly Choke Company The (a shotgun choking	
Howard Co (cement well and chimney) New Haven	device) Tariffville	G & (
Pipe Fitters Hand Tools & Pipe Threading Machines	Pitney Bowes Inc Stamford Potentiometers—Electronic	Chapm
Capewell Manufacturing Company Hartford Pipe Fittings	Bristol Company The Waterbury Power Rollers	Hartfo
Corley Co Inc Malleable Iron Fittings Co Pipe Plugs  Plainville Branford	Consolidated Industries Inc West Cheshire Precision linvestment Casting Gowin and Keleher Investment Casting Co	Pratt (All
Holo-Krome Screw Corporation The (counter- sunk) West Hartford	Middletown Precision Machine Tool Spindles	Bristol ture,
Pipe Piugs—Socketed Holo-Krome Screw Corp The West Hartford	Whitnon Manufacturing Co (for milling, grinding, boring & drilling) Farmington	Farrel
Plastics B F Goodrich Sponge Products Division Shelton	Precision Revolving Machinery Whitnon Manufacturing Co Farmington	Snow-
Humphrey Fabricating Corp (laminated, fabricated parts)  Naugatuck Chemical Division United States	Precision Springs & Wire Forms Rowley Spring Co Inc The Bristol	Howar Mullite
Rubber Co Plastic Buttons  Naugatuck	Prefabricated Buildings City Lumber of Bridgeport Inc The Bridgeport	Bowse
Frank Parizek Manufacturing Co The West Willington	Waterbury Companies Inc Waterbury	1110
Patent Button Co The Waterbury Plastic Gems	Preservatives—Wood, Rope, Fabric Darworth Incorporated ("Cuprinol")	Norwa
Colt's Manufacturing Company Hartford	("Cellu-san") Press Papers Simsbury	Sorens
American Cyanamid Co (Molding Compounds, Adhesives, Laminating Resins) Wallingford	Case Brothers Inc Manchester Presses Farrel-Birmingham Company Inc (Hydraulic	Rayme (Ele
Plastic Printing Plates Lockwood Sons Inc Wm H Hartford	Presses—Molding Ansonia	co
Black Rock Mfg Company The Bridgeport	Standard Machinery Co The (compression and transfer molding, automatic and semi-auto-	per
Farrel-Birmingham Company Inc Ansonia	matic) Mystic	Kanth

Rayon Staple Fiber ord Rayon Corp The Rocky Hill

Presses-Power
bury Farrel Foundry & Machine Co The
Waterbury Pressure Vessels

Ilk Tank Co Inc The (unfired to ASME e Par U 69-70)

South Norwalk ock Manufacturing Co The Hartford mann Press Inc
Lockwood & Brainard A Division of Condicut Printers Inc
Brothers

Waterbury

Waterbury

Hartford

Waterbury

Waterbury

Flag

Waterbury

Hartford

Waterbury

Flag

Waterbury

Hartford

Waterbury

Flag

Waterbury

Hartford

Waterbury

Waterbury way Corporation The Hartford Waterbury Bristol Hartford New Haven Wethersfield Hartford th Press
r Press
n Brothers Inc
& Greenough Co The
Simonds Inc
tteinbach & Sons
Valker-Rackliff Company New Haven New Haven Printing Machinery
in Engineering Co (automatic) Bridgeport
is W Hall Company Stamford Printing Plates rood Sons Inc Wm H ood Sons Inc Wm n

Printing Rollers

Ders-Storck Company Inc The (engraved)

Norwich Production Control Equipment
Company Inc Middletown Production Welding idated Industries West Cheshire idated Industries
Profilers
& Whitney Div Niles-Bement-Pond Co
West Hartford Propellers—Aircraft ton Standard Div United Aircraft Corp pellers and other aircraft equipment) Windsor Locks Protective Coatings son Company The A S (Waxes) South Norwalk Publishers de & Sons Inc The & Towne Mfg Co The Pumps—Small Industrial New Haven Pump Valves Manufacturing Company Punches
on & Pettis Mfg Co The (ticket & cloth)
Brewery St New Haven Putty Softeners—Electrical
ner Terry Co The Box 415 Forestville
Pyrometers
ol Co The (recording and controlling) Radiation—Finned Copper
Manufacturing Co West Hartford
O Manufacturing Company The
New Haven n Radiator Co The (steel and copper)
Hartford Raditors-Engine Cooling
O Manufacturing Co New Haven Ratchet Offset Screw Driver man Co J W Durham

1

A H

R

Hartford

Stamford

Hartford

S

B

I

D

S

J

Refrigeration
r Technical Refrigeration Div Bowser
(high altitude, low temperature)
Terryville

Regulators
ralk Valve Company (for gas and air)
South Norw
Stamfi sen & Company Inc

Research & Development
and Engineering Laboratories
ectro-Mechanical) Middletown

nond Engineectro-Mechanical)

Resistance Wire

Jeliff Mfg Co The (nickel chromium, copr nickel, iron chromium, aluminum)

Southport

Stamford
(Adt.) Kanthal Corporation The

#### CONNECTIC T ' S MA DE IN

American Optical Company Safety Products
Putnam Division

Retainers

Hartford Steel Ball Co The (bicycle & auto-Hartford motive)

Riveting Machines

Grant Mfg & Machine Co The
Ripley Company Inc
H P Townsend Manufacturing Co
Elmwood Blake & Johnson Co The (brass, copper and non-ferrous)
Clark Brothers Bolt Co Mildale Plume & Atwood Mig Co The Thomaston (aybestos Div of Raybestos-Manhattan Inc The (brass and aluminum tubular and solid copper)
Raybestos Div of Raybestos-Manhattan Inc The (iron)

Rods

Elmwood
Waterville
Waterville
Waterville
Raybestos Thomaston
Bridgeport
Bridgeport
Bridgeport (iron)

Rods

American Brass Company The (copper, brass, bronze)

Bridgeport Brass Company

Bridgeport Brass Company

Bristol Brass Corp The (brass and bronze) Scovill Manufacturing Company (brass and bronze)

Rollers—Bituminous Paving
Gabb Special Products Div E Horton & Son Company

Windsor Locks Company
Roller Skate Wheels
Raybestos Division of Raybestos Manhattan
Bridgeport Inc Bridgeport
Roller Skates
Winchester Repeating Arms Company Division
Olin Industries Inc New Haven Olin Industries Inc
Rolling Mills & Equipment
Farrel-Birmingham Company Inc
Fenn Mig Co The
Precision Methods & Machines Inc Waterbury Farrel Foundry & Machine Co The Waterbury Farrel-Birmingham Company Inc (Chilled and Alloy Iron, Steel) Alloy Iron, Steel Rope Wire

Rope Wire

American Steel & Wire Div of U S Steel

New Haven Rubber Chemicals
Naugatuck Chemical Division United States
Rubber Co
Stamford Rubber Supply Co The
Vulcanized Vegetable Oils)

New Haven
Naugatuck
Naugatuck
("Factice"
Stamford Rubber-Cellular
BF Goodrich Sponge Products Division Shelton Rubber Cutting Machinery
Black Rock Mig Company The Bridgeport Rubber Printing Plates Lockwood Sons Inc Wm H Rubberized Fabrics
Duro-Gloss Rubber Co The New Haven Rubber Footwear Goodyear Rubber Co The Middletown Seamless Rubber Company The New Haven Rubber—Handmade Specialities
Seamless Rubber Company The New Haven New Haven Rubber-Latex Foam
B F Goodrich Sponge Products Division Shelton Rubber Latex Compounds and Dispersions laugatuck Chemical Division United States Rubber Co (coating, impregnating and adhe-sive compounds) Naugatuck Rubber Mill Machinery Farrel-Birmingham Company Inc Airex Rubber Prod Corp Portland Airex Rubber Prod Corp

Rubber-Moided Specialities

Airex Rubber Prod Corp
Canfield Co The H O
Seamless Rubber Company The
Rubber Products-Mechanical
Auburn Manufacturing Company The (washers, gaskets, molded parts)
Canfield Co The H O
Seamless Rubber Company The
Rubber-Reclaimed
Naugatuck Chemical Division
Rubber Co
Rubbers
Rubbers
Rubber Naugatuck
Rubber Co
Rubbers Naugatuck Chemical Div U S Rubber Co (special synthetic) (special synthetic)
Rubbish Burners
John P Smith Co The 423-33 Chapel St
New Haven Anderson Oil Co Inc F E Portland

Saddlery
The Smith-Worthington Saddlery Co Hartford Safety Clothing
erican Optical Company Safety Products
Putnam Safety Fuses
Ensign-Bickford Co The (mining & detonating) Safety Gloves and Mittens
American Optical Company Safety
Division
Settle Gambles
Putnam Safety Goggles ical Company Safety American Optical Division Products Putnam Division Safety Switches
Trumbull Components Department, General Electric Co Plainville General Saw Blades—Hack Capewell Mfg Co The Hartford Saw Blades—Hack & Band Capewell Manufacturing Company Hartford Saws, Band, Metal Cutting Atlantic Saw Mfg Co New Haven Scissors Acme Shear Company The Bridgeport Screens
Hartford Wire Works Co The (Windows, Doors and Porches)

Hartford Screw Caps
Weimann Bros Mfg Co The (small for bottles)
Derby Screw Machine Accessories Barnaby Manufacturing and Tool Co Bridgeport H P Townsend Mfg Company T Screw Machine Products
Apex Tool Co Inc The
Blake & Johnson Co The
Consolidated Industries
Dependable Automatic Screw Co
Eastern Machine Screw Corp The
Truman & Barclay Sts
Fairchild Screw Products Inc
Franklin Screw Machine Co The
Capacity) capacity)
Garthwait Mig Co A E (up to and incl 1/2")
Waterbury Greist Mfg Co The (Up to 1½" capacity)
New Haven
Horberg Grinding Industries Inc (Heat treated Horberg Grinding industries inc (freat treated and ground type only)

19 Staples Street Humason Mfg Co The Kerrin Company West Haven Lowe Mfg Co The National Automatic Products Company The Region Nelson's Screw Machine Products Plantsville New Britain Machine Company The New Britain Machine Company The New Britain New Haven Screw Machine Prods Inc (up to 1½" capacity) Milford (up to 1½" capacity)
Olson Brothers Company (up to ¾" capacity)
Plainville Olson & Sons R P
Peck Spring Co The
Plume & Atwood Míg Co The
Scovill Manufacturing Company
United Screw Machine Co
Waterbury Machine Tools &
Waterbury Machine Tools &
(Brown & Sharpe and Davenport)
Waterbury
Waterbury Screw Machine Tools
American Cam Company Inc (Circular Form Tools
Pratt & Whitney Div Niles-Bement-Pond Co (Reamers, Taps, Dies, Blades and Knurls)
West Hartford
West Hartford

Somma Tool Co (precision circular form tools)
Waterbury American Screw Company Willimantic Atlantic Screw Works (wood) Hartford Blake & Johnson Co The (machine and wood) Waterville Bristol Company The (socket set and socket cap screws)

Waterving
Waterbury
Waterbury
Waterbury
Waterbury
Waterbury Screws)
Clark Brothers Bolt Co
Eagle Lock Co The
Holo-Krome Screw Corporation
and socket cap)
Scovill Manufacturing Company
Superior Manufacturing Co The
Scokets Superior Screw-Sockets

Allen Manufacturing Company The Waterly
Waterly Hartford

Bristol Co The Waterbury
Holo-Krome Screw Corp The West Hartford Sealing Tape Machines
Better Packages Inc

Service Entrance Equipment
Trumbull Components Department, General Electric Co
Sewing Machines
Greist Mfg Co The (Sewing Machine attachments)
503 Blake St New Haven
Merrow Machine Co The (Industrial) Hartford
Singer Manufacturing Company The (industrial)
Bridgeport J B Williams Co The Acme Shear Co The (household) Acme Shear Co Inc Shella
Wolcott Tool and Manufacturing Company Inc
Waterbury Bridgeport

Sheet Metal Products
American Brass Co The (brass and copper)
Waterbury
Merriam Mfg Co (security boxes, fitted tool
boxes, tackle boxes, displays)
Durham
Charles Parker Co (sheet metal fabricators) Parsons Co Inc W A (fabricators) Durham Plume & Atwood Mfg Co The Thomaston United Manufacturing Co Division of The W L Maxson Corp

Sheet Metal Stampings
American Brass Company The
American Buckle Co The
DooVal Tool & Mig Inc The
J H Sessions & Son
Patent Button Co The
Plume & Atwood Mig Co The Waterbury West Haven Naugatuck Bristol Waterbury Chomaston Shipment Sealers Better Packages Inc Shelton

Showcase Lighting Equipment Wiremold Company The Hartford II C Cook Co The (for card files)
32 Beaver St

Signs
Berger Sign Co (neon electric-porcelain enamel-stainless steel)

Ansonia

Hartford Silk Screen Process Printing
Norton Co B H New Haven

B H
Silk Screen Printing
New Haven Sirocco Screenprints New Haven
Silk Screening on Metal
Merriam Mfg Co (Displays and Specialties, to
Durham

Sintered Metal Products
Raybestos Division of Raybestos Manhattan Sizing and Finishing Compounds
American Cyanamid Company Waterbury

Slide Fasteners
G E Prentice Mfg Co The
North & Judd Manufacturing Co
Patent Button Co The Kensington New Britain Waterbury Patent Button Co and
Slings
American Steel & Wire Div of U. S. Steel
New Haven

Smoke Stacks Bigelow Company The (steel) Norwalk Tank Co The New Haven South Nor

Sonn J B Williams Co The (industrial soaps, toilet soaps, shaving soaps) Glastonbury

soaps, shaving soaps)

Special Machinery
Boesch Míg Co Inc
Black Rock Míg Company The
Farrel-Birmingham Company Inc
Federal Machine & Tool Co
Fenn Míg Co The
H P Townsend Míg Company The
National Sheradizing & Machine Co
& stock shells for rubber industry
Swan Tool & Machine Co The

Special Parts

Glastonbury

Bridgeport
Bridgeport
Bristol
Bristol
Elmwood
(mandrels
Hartford
Hartford

Special Parts

Special Parts

Fenn Mfg Co The
Greist Mfg Co The (small machines, especially precision stampings)

J H Sessions & Son

New Haven
Bristol

Spinnnings
Gray Manufacturing Company The Hartford Spline Milling Machines
Townsend Mfg Co The H P Elmwood

Sponge Rubber
B F Goodrich Sponge Products Division Shelton Spray Painting Equipment and Supplies
Lea Manufacturing Co The Waterbury

Spring Colling Machines
Torrington Manufacturing Co The Torrington Spring Presses
Townsend Mfg Co The H P

Townsend Mig Co The H Spring Units

Spring Units

Owen Silent Spring Division American Chain
& Cable Company Inc

Bridgeport
(Advt.)

Spring Washers Barnes Co The Wallace Div Associated Spring Corp Bristol	Straps, Leather Auburn Manufacturing Company The (textile, industrial, skate, carriage) Middletown	Thread Chasers  Geometric Tool Division, Greenfield Tap & Die Corp. New Haven
Springs—Coil & Flat  Barnes Co The Wallace Div Associated Spring  Corp Bristol Bristol Spring Manufacturing Co Plainville	Leed Co The H A Hamden Studio Couches	Thread Gages Pratt & Whitney Div Niles-Bement-Pond Co West Hartford
Foursome Manufacturing Co Humason Mfg Co The Newcomb Spring Corp The Southington	Waterbury Mattress Co Waterbury Super Refractories Mullite Refractories Company The Shelton	Thread Milling Machines Pratt & Whitney Div Niles-Bement-Pond Co West Hartford
New England Spring Manufacturing Company Unionville Peck Spring Co The Plainville	Surface Metal Raceway & Fittings Wiremold Company The Hartford Surgical Dressings	Thread Rolling Machinery Hartford Special Machinery Co The Hartford
Springs—Flat  Barnes Co The Wallace Div Associated Spring Corp Bristol Spring Manufacturing Co Plainville	Acme Cotton Products Co Inc East Killingly Seamless Rubber Company The New Haven Surgical Rubber Goods	Threading Machines  Grant Mfg & Machine Co The (double and automatic)  Bridgeport
Foursome Manufacturing Co Humason Mig Co The Springs—Furniture	Seamless Rubber Company The Switches—Electric General Electric Company Bridgeport	A W Haydon Co The Waterbury H C Thompson Clock Co The Bristol
Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport Springs-Wire	Swaging Machinery Fenn Mig Co The Hartford Special Machinery Co The Hartford	R W Cramer Company Inc The Rhodes Inc M H  Timing Devices  Centerbrook Hartford
Barnes Co The Wallace Div Associated Spring Corp Bristol Bristol Spring Manufacturing Co Plainville	Switchboards Distribution Assemblies Department, General Electric Co Plainville	A W Haydon Co The R W Cramer Company Inc The Lux Clock Manufacturing Company Waterbury
Colonial Spring Corporation The Connecticut Spring Corporation The sion, extension, torsion) Hartford	Rockbestos Products Corp (asbestos insulated) New Haven Synthetic Resins	Rhodes Inc M H Seth Thomas Clocks United States Time Corporation The Waterbury
Foursome Manufacturing Co Bristol Humason Mfg Co The Forestville D R Templeman Co (coil and torsion) Plainville J W Bernston Company (coil and torsion) Plainville	American Cyanamid Co (Textile Resins, Paper Resins) Waterbury Tabulating Equipment—Manual Denominator Company Inc Woodbury	Timing Devices & Time Switches A W Haydon Co The Lux Clock Manufacturing Company H H Rhodes Inc
Newcomb Spring Corp The Southington  Springs, Wire & Flat  Autoyre Company The Oakville	Waterbury Tag Company The (Paper and Cloth)	Thinsheet Metals Co The (non-ferrous metals in rolls) Waterhury
Stamped Metal Products American Brass Company The Waterbury Stamps	Bigelow Company The (steel) Norwalk Tank Co The South Norwalk	Wilcox-Crittenden Div North & Judd Mfg Co Middletown Tool Hardening
Hoggson & Pettis Mfg Co The (steel) 141 Brewery St New Haven Parker Stamp Works Inc The (steel) Hartford	Rolock Inc (Alloy) Fairfield Storts Welding Company (steel and alloy) Meriden	Commercial Metal Treating Co Bridgeport Tools Hoggson & Pettis Mfg Co The (rubber workers)
C & H Mfg Co Inc Watertown Donahue Mfg Co Inc Watertown	Russell Manufacturing Company The (woven cotton and woven glass tape) Middletown	141 Brewery St New Haven Tool Chests Vanderman Manufacturing Co The Willimantic
DooVal Tool & Mfg Inc The Foursome Manufacturing Co Plume & Atwood Mfg Co The (small) Thomaston	Tapes—Industrial Pressure Sensitive Seamless Rubber Company The New Haven Tape Recorders Conn Telephone & Electric Corp Subsidiary of	C & H Mfg Co Inc Watertown Lambro Tool-Die & Mfg Co Bridgeport
Stanley Pressed Metal New Britain Stampings—Small	Great American Industries Inc Meriden Tape Recorder Magazines Conn Telephone & Electric Corp Subsidiary of	Metropolitan Tool & Die Hartford Moore Special Tool Co Swan Tool & Machine Co The Hartford
Barnes Co The Wallace Div Associated Spring Corp Bristol Spring Manufacturing Co Plainville	Great American Industries Inc Meriden Tap Extractors Walton Company The West Hartford	O.S.A. Manufacturing Co Otterbein Co J A Middletown
Greist Manufacturing Co The Humason Mfg Co The Stationery Specialties	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	Riverside Mig Co Inc The New Haven Tools, Fixtures, Gauges Fredericks Tool Co J F West Hartford
American Brass Company The Waterbury  Steel Stanley Works The (cold rolled strip)	Brownell & Co Inc Moodus Telemetering Instruments	Boesch Mfg Co Inc Danbury
Steel Castings	Bristol Co The  Telephone Answering & Recording Machines	Greist Mfg Co The New Haven
Farrel-Birmingham Company Inc Ansonia Hartford Electric Steel Corp The (Carbon, low alloy and stainless steel and Ductile iron) Hartford	Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden Testers-Insulation McNeal J D New Haven	Geo S Scott Mfg Co The Gong Bell Co The N N Hill Brass Co The East Hampton East Hampton
Malleable Iron Fittings Co Nutmeg Crucible Steel Co Steel—Cold Rolled Spring  Branford Branford	Testers—Insulation Wire & Cable Davis Electric Company Wallingford Testers—Non-Destructive	Waterbury Companies Inc Waterbury  Tramways  American Steel & Wire Div of U S Steel
Barnes Co The Wallace Div Associated Spring Corp Steel-Cold Rolled Stainless	Sperry Products Inc Danbury Textile Machinery Merrow Machine Co The	Berkshire Transformer Corp The Dano Electric Company Winsted
Ulbrich Stainless Steels Wallingford Wallingford Steel Company  Steel—Cold Rolled Strip and Sheets  American Steel & Wire Div of U S Steel	2814 Laurel St Hartford Textile Mill Supplies Ernst Bischoff Company Inc Ivoryton	Trucks-Commercial  Metropolitan Body Company (International Harvester truck chassis and "Metro" bodies)
Detroit Steel Corporation  Wallingford Steel Company  New Haven  New Haven  Wallingford Wallingford	Polymer Industries Inc Springdale Textile Processors	Bridgeport Trucks—Industrial George P Clark Co Windsor Locks
Steel Goods Merriam Mfg Co (sheets products to order) Durham	American Dyeing Corporation (rayon, acetate, nylon, dacron, other synthetics) Rockville Thermometers	Excelsior Hardware Co The George P Clark Co  Windsor Locks
Steel—Hot Rolled Strip Northeastern Steel Corp Bridgeport Steel Rolling Rules	Bristol Co The (recording and automatic con- trol) Waterbury Manning Maxwell & Moore Inc Stratford	Trucks—Skid Platforms Excelsior Hardware Co The (lift) Stamford Tube Bending
Waterbury Lock & Specialty Co The Milford  Steel Strapping Stanley Works The New Britain	Bridgeport Thermostat Company Inc (automatic) Bridgeport	Donahue Mfg Co Inc Watertown Tube Clips
New Haven Electrotype Div Electrographic Corp	Thin Gauge Metals Plume & Atwood Mfg Co The Thinsheet Metals Co The (plain or tinned in rolls) Thomaston Thomaston Waterbury	H C Cook Co The (for collapsible tubes) 32 Beaver St Weimann Bros Mfg Co The (for collapsible tubes) Tube Fittings
H C Thompson Clock Co The Bristol	American Thread Co The Belding Heminway Corticelli Putnam	Scovill Mfg Co ("Uniflare") Waterbury Tubers
R A E Storage Battery Mig Co Glastonbury	Max Pollack & Co Inc Groton and Willimentic Wm Johl Manufacturing Co Mystic	rubber and plastic industries)  Kystic (Advt.)

#### IT'S IN CONNECTICUT M ADE

Washers (Continued)
Clark Brothers Bolt Co
Humphrey Fabricating Corp Unionville
Plume & Atwood Mfg Co The (brass & copper) Wire Country

Hartford Wire Works Co The
C O Jeliff Mfg Co The (all metal, southport Norwalk wairfeld Tubes-Collapsible Metal Sheffield Tube Corp The N Milldale New London Sheffield Tube Conp.

Tubing
American Brass Co The (brass and copper)

Waterbury Pequot Wire Cloth Co Inc Rolock Inc (Alloy) Smith Co The John P H Rosenbeck Inc aling Manufacturing Company (made to order) Unionville Bridgeport Brass Company (brass and copper)

G & O Manufacturing Co (finned)
Scoville Manufacturing Company (Brass and Copper)

Copper)

Waterbury 91 Fairfield New Haven Washers-Felt
Chas W House & Sons Inc (Mills & Cutting Unionville Wire Drawing Dies Waterbury Wire Die Co The Waterbury Tubing-Flexible Metallic American Brass Co Metal Hose Wire Dipping Baskets Hartford Wire Works Co The John P Smith Co The 423-33 Chapel St Watches Waterbury E Ingraham Co The United States Time Corporation The Bristol Tubing—Heat Exchanger
American Brass Company The
Scovill Manufecturing Company
Tumbling Barrels
Henderson Bros Co The
Waterbury New Haven Waterbury Water Heaters Whitlock Manufacturing Co The (instantaneous & storage) Wire Formings Autoyre Co The
G E Prentice Mfg Co The
Master Engineering Company
North & Judd Manufacturing Co
Turner & Seymour Manufacturing Co The
Torrington
Verplex Company The

Oakville
Kensington
West Cheshire
New Britain
Torrington
Essex Henderson Bros Co The Waterbury
Tumbling Equipment & Supplies
Tumbling Sales & Service Company Greenwich
Tumbling Sales & Service Company, Esbec
Tumbling Division Meriden
Typewriters
Royal Typewriter Co Inc Hartford
Underwood Corporation Hartford
Typewriters—Portable
Royal Typewriter Company Inc Hartford
Typewriter Ribbons and Supplies
Royal Typewriter Company Inc Hartford
Underwood Corporation Hartford
Underwood Corporation
Hartford and Bridgeport
Ultrasonic Processing Equipment
General Ultrasonics Co The Hartford Hartford Water Heaters-Electric Bauer & Company Inc Hartford Water Heaters—Gas or Kerosene Holyoke Heater Corp of Conn Inc Hartford Wire Forms

Barnes Co The Wallace Div Associated Spring
Bristol Waxes
Harrison Company The A S (and other protective coatings)
South Norwalk Barnes Co The Wallace Div Associa Corp Bristol Spring Manufacturing Co Colonial Spring Corporation The Connecticut Spring Corporation The Poursome Manufacturing Co Humason Mig Co The New England Spring Mig Co Templeman Co D R Terryville Manufacturing Co Plainville Hartford Waxes-Floor Hartford Bristol Forestville Unionville Plainville Fuller Brush Co The Hartford Wedges ring Company (hammer Uniony Saling Manufacturing axe) Unionville Ultrasonic Co The Hartford Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div)
Mystic Welding
Farrel-Birmingham Company Inc
G E Wheeler Company (Fabrication of Steel & Non-Ferrous Metals)
Industrial Welding Company (Equipment Manufacturers—Steel Fabricators)
Hartford Wire Goods
American Buckle Co The (overall trimmings) Vacuum Bottles and Containers
American Thermos Bottle Co Norwich
Vacuum Cleaners
Electrolux Corporation Old Greenwich
Spencer Turbine Co The Hartford West Haven Waterbury Patent Button Co The Waterbus Scovill Manufacturing Company (To Order) Waterbury Welding—Lead
Storts Welding Company (tanks and frabricaMeriden Wire Partitions Spencer Turnine Co Valves

Valves

Norwalk Valve Company (sensitive check valves)

South Norwalk Welding Rods
American Brass Company The
Bridgeport Brass Company Bridgeport
Bristol Brass Co The (brass & bronze)
Bristol Hartford Wire Works Co The John P Smith Co The 423-33 Chapel St Hartford New Haven Valve Discs
Colt's Manufacturing Company
Valve—Automobile Tire
Bridgeport Brass Company Wire Products Hartford Wheels-Industrial
Windsor Locks Clairglow Mfg Company Portland
Humason Mfg Co The Forestville
Plume & Atwood Mfg Co The (to order) Bridgeport George P Clark Co Bridgeport Brass Company Bridgeport Valves-Radistor Air
Bridgeport Brass Company Bridgeport Valves-Relief & Control
Beaton & Caldwell Mfg Co New Britain Valves-Safety & Relief
Manning Maxwell & Moore Inc Stratford Wicks Thomaston Auburn Manufacturing Company The (felt, as-bestos) Middletown A H Nilson Mach Co The Bridgeport Holyoke Heater Corp of Conn Inc Hartford Wire Rings
American Buckle Co The (
tinners' trimmings)
Humason Mfg Co The
Templeman Co D R Wiffle Ball Inc The handles and West Haven Forestville Plainville (pan Vanity Boxes
Rridgeport Metal Goods Mfg Co
Plume & Atwood Manufacturing Co New Haven Bridgeport Window & Door Guards Hartford Wire Works Co The Smith Co The John P Hartford Thomaston New Haven Wire Rope and Strand American Steel & Wire Div of U S Varnishes Staminite Corp The

Vegetable Peelers
Colt's Manufacturing Company

American Velvet Co (owned and A Wimpfheimer & Bro Inc)
Leiss Velvet Mig Co Inc The
Velvet Textile Corporation The

Velvet Textile Corporation The

West Haven Window Shades
New England Shade & Blind Co Inc Durham U S Steel New Haven Wire Shapes Bridgeport Chain & Mfg Co Wiping Cloths
Federal Textile Corporation Bridgeport New Haven Wire
American Brass Company The American Steel & Wire Div of U S Steel
Atlantic Wire Co The (steel)
Bartlett Hair Spring Wire Co The (hair spring)
North Haven Wire-Specialties
Andrew B Hendryx Co The New Haven Wooden Boxes Wallingford Planing Mill Co Inc Venetian Blinds
Findell Manufacturing Company M
Jennings Company The S Barry N
New England Shade & Blind Co Inc Yalesville Manchester Wood Handles Bridgsport Brass Company (brass and silicon bronze)
Bristol Brass Corp The (brass & bronze)
Bristol Brass Corp The (steel)
Bristol Brass & Corp The (steel)
Bristol Brass Bristol
Bristol Brass Bristol
Waterbury
Plume & Atwood Mfg Co The (brass, bronze, nickel silver)
Bristol Brass, Bronze and Nickel Silver)
Waterbury 91 New Haven Durham Salisbury Cutlery Handle Co The (for cutlery Salishury Venetian Blind Tape Russell Manufacturing Company The (woven cotton and woven plastic) Middletown Ventilating Systems

Colonial Blower Company Plainville Wood Scrapers Fletcher-Terry Co The Forestville Plainville Colonial Blower Company

Vertical Shapers

Pratt & Whitney Div Niles-Bement-Pond Co

West Hartford Woodwork C H Dresser & Sons Inc (Mfg all kinds of woodwork) Hartford woodwork) Hartford Builders Finish Co Hartford Vibrators—Pneumatic
Branford Co The (industrial) New Haven Chas W House & Sons Inc (Mills & Cutting Unionville Vinyl Extrusion & Moulding Compounds
Electronic Rubber Co Stamford Wire and Cable General Electric Company (for residential, com-mercial and industrial applications)

Bridgeport Vises Charles Parker Co The Meriden
Fenn Manufacturing Company The (QuickAction Vises) Co The (Combination Bench Pipe) Willimantic Yarns Hartford Spinning Incorporated (Woolen, knit-ting and weaving yarns) Unionville Aldon Spinning Mills Corporation The (fine-woolen and speciality) Talcottville Ensign-Bickford Co The (jute-carpet) Simabury Rockbestos Products Corporation (all asbestos, mining, shipboard and appliance applica-Wall Paper Stamford Wall Paper to Mashers

American Felt Co (felt)

Auburn Manufacturing Company The (all manufacturing Company Amonfer & non-fer-fer and fer and Wire Arches & Trellises Hartford Wire Works Co The John P Smith Co The 423-33 Chapel St Hartford Zinc Platt Bros & Co The (ribbon, strip and wire)
P O Box 1030
Waterbury New Haven

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Locks

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psible Derby

rbury

terials) Middletown
Blake & Johnson The (brass, copper & non-ferrous) Waterville

Wire Baskets Wiretex Mfg Co Inc (Industrial, for acid, heat, treating and degreasing)

Bridgeport Zinc Castings
Newton-New Haven Co Inc
West Haven
West Haven

(Advt.)

# Complete TUMBLING Service



- Removing Grinding Marks
  - Removing Draw Marks
    - Removing Tool Marks
      - Ball Burnishing
        - Radius Forming
          - Deburring
            - Polishing
              - Micro-inchFinishing

As the largest tumbling job shop in Connecticut, we offer

- Strict Adherence to Specs
  - Greater Uniformity
    - Fast Service
- Production Schedules Met
  - Amazing Cost Reductions

To learn how you, too, can get all these advantages Phone Meriden 5-5718



If you have your own tumbling department, let us tell you about ESBEC Field Engineered Equipment. Abrasives and Compounds. They give superior results at substantial savings.



## TUMBLING SALES & SERVICE CO.

26 Charles Street, Meriden, Conn.

Member: The New England Council
Manufacturers' Assn. of Connecticut

#### Let's Lead Again

(Continued from page 15)

#### Research Must Be Specific

Again, the question arises, "Just what, specifically, can we do about the situation?"

One answer is that each one of us. to the extent that we can exert an influence in the management of any business enterprise, can insist that the research and development program be kept up to standard, and that it have its proper place "under the sun". It is a mistake to be satisfied with haphazard and disconnected ideas and projects which are active only whenever people "have time". Research and development effort, to be effective, must be an organized entity within a company. In line with the above statistics, we should not be satisfied until for every 100 employees in the average manufacturing concern, there is at least one top notch engineer or scientist who is applying all the available discoveries and techniques of modern science to improve products or processes, develop new products, or reduce costs. And by the way, the latter category-cost reduction-is generally a too-much-forgotten target of research.

It is not necessary to be a large manufacturer to "afford" research. Regardless of size, the typical company must have it in some form, or it will eventually be out of business. It should be budgeted, like advertising and other similar expenditures. An overall average in most industries is about two percent of gross sales, but such expenditures, in order to be effective, must be reasonably constant from year to year. Otherwise, much effort will be wasted

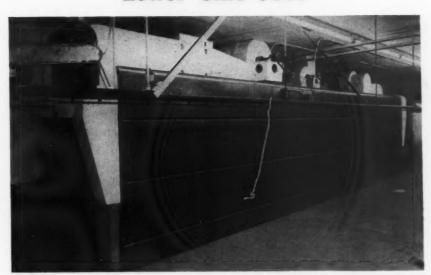
From the broad viewpoint our whole pattern of life-the homes we live in, the automobiles, planes and trains we ride in, the food we eat, the medicine to heal our ills-are all the end results of scientific research and development. The kind of life we will lead tomorrow -the kind of industry we will havewill be determined by the research which our manufacturers do today. The pattern of our industrial progress lies in a successful partnership between those who create good things and those who make them. It must involve close teamwork between research and manufacturing.

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# for Higher Production, Improved Quality Lower Unit Cost



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Compact ovens and furnaces can be placed right in the production line. Saves time and handling.

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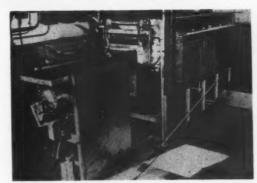
Electric hear's efficient heat transfer reduces processing time in drying, baking, heat treating and other operations. Costs are materially reduced, because rejects, reruns and losses are held to a minimum.

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3

28

25



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